FIGURE 1. THE ISLAND OF MOCHLOS

AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS

EXPLORATIONS IN THE ISLAND OF MOCHLOS

BY

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PREFATORY NOTE

This book is a report of the excavations at Mochlos, off the coast of Crete, which I conducted in the spring and summer of 1908. The expense of the work was borne jointly by friends of the Museum of Fine Arts in Boston, by the American School of Classical Studies at Athens, which obtained the concession from the Cretan authorities, and by myself. The objects which I was allowed to take out of Crete are in the Museum at Boston. The expense of this publication is borne by the School at Athens. A brief report on the work in the town of Mochlos appeared in the *American Journal of Archaeology*, Vol. XIII, 1909, pp. 273–303.

I wish to give hearty thanks to the many friends who have helped me in various ways. Among these I would mention especially the two Cretan Ephors, Doctor Hatzidakis and Doctor Xanthoudides, Mr. B. H. Hill, the Director of the School at Athens, Mr. Gardiner M. Lane, the President of the Trustees of the Museum, Sir Arthur Evans, Miss Edith H. Hall, and the Committee on Publications of the School at Athens, Professor G. H. Chase, Professor J. R. Wheeler, and Professor H. N. Fowler. Miss Hall has read the manuscript and has offered many valuable suggestions. The members of the Committee have read both manuscript and proof and have aided me greatly by their advice and counsel.

Richard B. Seager.

October 7, 1911.

CONTENTS

EXPLORATIONS IN MOCHLOS

INTRODUCTION

In the history of archaeology no discoveries have raised greater controversy or proved more fascinating to the general public than those of Minoan Crete. When, years ago, Schliemann opened the shaft graves at Mycenae many scholars refused to accept them as belonging to a prehellenic civilization. They found it hard to believe that behind the art of classic Greece lay centuries of civilization and culture reaching back into the dim ages contemporary with the earliest dynasties of Egypt. It was not easy to convince the enthusiastic admirers of Hellenic civilization that the art of Greece was no sudden and unaided flowering of a half barbarous and obscure race, but that in reality it had felt the impulse and influence of an art and civilization which existed centuries before. Yet we now know that such was the case. The classic Greek was the product of an ancient race mixed with the blood of wandering tribes of barbarians who for a time had blotted out the results of centuries of artistic development. Homer's stories of Achaean splendor were no idle tales but had a foundation of solid fact. In his day the old order was a thing of the past, but legends of former magnificence were still handed down from father to son. The various artistic masterpieces possessed by the Achaeans were regarded as the work of the gods, far surpassing anything that could be made by human hands in the days when the epos was composed. There is little doubt that the Achaeans did possess

Note. The titles of books and periodicals to which reference is frequently made are abbreviated as follows:

A. J. A. = American Journal of Archaeology, Second Series, 1897– .

Anth. Publ. = Anthropological Publications, the Museum, University of Pennsylvania, 1909– .

B. S. A. = Annual of the British School at Athens, 1899– .

Dawn Med. Civ. = Dawn of the Mediterranean Civilization by Angelo Mosso, London, 1910.

Ἐφ. Ἀρχ. = *Ἐφημερὶς Ἀρχαιολογική*, 1837– .

Gournia. = Gournia, Vasiliki and other Prehistoric Sites on the Isthmus of Hierapetra, Crete, by Harriet Boyd Hawes, Philadelphia, 1908.

J. H. S. = Journal of Hellenic Studies, 1880– .

Mon. Ant. = Monumenti Antichi pubblicati per cura della Reale Accademia dei Lincei, 1889– .

Phylakopi. = Excavations at Phylakopi in Melos, published by the Society for the Promotion of Hellenic Studies, London, 1904.

Trans. = Transactions, Department of Archaeology, University of Pennsylvania, 1904– .

such objects, but it is probable that they were really the spoil of the many Minoan towns and palaces which had fallen at the hands of the invaders. The Minoan civilization was finally destroyed about 1200 B.C. by rude tribes who entered Greece from the north and, sweeping down into the Peloponnesus, spread themselves through the islands of the Aegean. A period of great unrest seems to have existed in Crete for 200 to 250 years before the final extinction of the Minoan civilization, and the first signs that the Minoan power was tottering to its fall were apparent as early as the end of the Late Minoan II period. The identity of the people who first weakened the foundations of this long-established civilization is not clear. It is more than likely that Homer's Achaeans were among those who plundered the rich towns and palaces of Crete, but whether these Achaeans were a mainland branch of the Minoan race or one of the invading tribes from the north is still a much disputed point. Following closely on the heels of the first invaders of the Minoan kingdom came other warlike tribes among whom must be included the iron-using Dorians, and for some two or three centuries the Aegean appears to have been the scene of constant invasions and migrations, the battle ground of a series of robber princes. During this period of chaotic darkness the old civilization was swept away. Minoan Crete became a thing of the past and the remnant of its many inhabitants led a hand-to-mouth existence in mountain fastnesses well out of the reach of roving bands of pirates. The splendor of Mycenae also vanished, but traditions of former greatness still persisted wherever the old stock survived the constant streams of barbarous conquerors.

When the influx of northmen stopped and the Aegean had ceased to be the battle ground of nations, we find the new intruders settling themselves side by side with the remnants of the ancient population now scattered broadcast through the lands known to us as Hellenic. Whenever a race of northern origin settled in the Mediterranean it very soon lost many of its own characteristics through intermarriage with the previous owners of the soil, as was the case, for example, with the Greek Ptolemies in Egypt many centuries later. It may be that a similar fate overtook the northern invaders of the Aegean. If we assume that such was the case it is easy to see how, once the newcomers began to lose their own characteristics, the inherent artistic spirit of the conquered Minoans revived in the mixed race, driving it into that amazingly rapid development which seemed so inexplicable before the spade lent its aid to the historian. This renaissance may be said to have begun with the

composing of the Homeric poems and probably started in parts of the Aegean where the ancient Minoan stock had been least affected by the new influx of foreign blood. We know that one of the principal migrations from Crete was towards the coast of Asia Minor,[1] and it is perhaps more than a coincidence that one finds in Asia Minor both the traditional birth-place of the Homeric legends and the first impulses of artistic regeneration.

In Crete excavations have uncovered the remains of a mighty civilization whose towns and palaces not only covered the entire island but spread themselves far and wide through the Aegean, even reaching to the western Mediterranean and the northern end of the Adriatic. These discoveries in Crete were begun in 1900 by the representatives of four nations, England, Italy, the United States and France. For the first few years the excavators themselves were as much amazed as the rest of the world by the objects revealed on the various sites. Huge palaces came to light at Knossos and Phaistos, while in the eastern part of Crete several small but prosperous towns were uncovered which showed that the artistic standard set by the palace sites was maintained in the lesser settlements. The first question which arose was what name should be given to this civilization and to the race who produced it. Many suggestions were made, but by tacit consent it was left for Dr. Arthur J. Evans as the *doyen* of Cretan excavators to settle the question. Dr. Evans was one of the first to realize the probable result of excavations in Crete as, some years before, he had discovered that a prehistoric system of writing had been in use among the early inhabitants of the island. After some consideration he decided that it would be reasonable to choose for this civilization the name with which Crete was most closely connected in early history and legend. Regarding Minos as a royal title, rather than the name of an individual, he suggested that this new civilization should be called Minoan. It appeared quite possible that more than one ruler bore the name of Minos and that the appellation was dynastic like that of Ptolemy in later Egypt. Although this nomenclature met with a good deal of opposition at the time it was proposed, it has been accepted by the various Cretan excavators and will be adhered to in the following account of the Early Minoan cemetery of Mochlos.

Dr. Evans on the cumulative evidence afforded by the various Cretan sites has drawn up a chronological scheme of the different periods represented in the development of the Minoan culture. The entire space of time, about 1500 years, occupied by the Minoan

[1] Herodotus I, 173.

civilization from its beginnings at the end of the neolithic period to its extinction in the 13th century B.C. is divided into three main divisions, the Early, the Middle and the Late Minoan. In the long space of time covered by these three divisions, Minoan culture passed through many distinct stages of development, so that, for the sake of convenience, the three main periods have been further subdivided each into three parts. Thus we have Early Minoan I, II, III, Middle Minoan I, II, III, and Late Minoan I, II, III, which are usually abbreviated as E. M. I, M. M. II, L. M. III, and so on. Each of these subdivisions is marked by the introduction of a new style of pottery or a distinct change in the style then in use. Luckily all the minor Cretan sites followed the fashions of the capital cities more or less closely. Therefore when we find a new style of decoration introduced at Knossos we are sure to find that it was adopted more or less simultaneously throughout the entire island.

To base chronological sequences upon the evidence of painted clay pots may at first sight seem an uncertain method, but in Crete these same pots, from a chronological point of view, are the most important of all finds and afford a sure method of dating the objects found with them. Most of the vessels used in Minoan dwellings were of clay and of these a great number are painted.

In the 1500 years covered by this culture, the Minoans changed both the shape and the decorative designs of these clay pots very frequently, and by careful observation of the stratification on many Minoan sites, these changes can be placed in chronological sequence. Necessarily, if a certain type of potsherd is always found to underlie the sherds of another given type on several sites, the only conclusion possible is that the type which lies the lower must be the earlier in date. Evidence of this sort from one site only might be open to doubt, since through the convulsions of nature and the hand of man strata sometimes become very much confused. When, however, this evidence is confirmed by any number of sites in different parts of the country it must be accepted as conclusive. With a little practice therefore the Cretan excavator is enabled to date a vase with great accuracy either by its decoration or, if it is unpainted, by its shape, although this last is a less certain test. As a rule, the changes in the decoration of Minoan pottery are clearly marked, and it is almost impossible for one who has handled some hundreds of sherds to confuse, say, a Middle Minoan fragment with one of Late Minoan date. No one site offers clear stratification for all nine of the Minoan periods, but on some the Early Minoan level

is especially well defined and on others the Middle or Late Minoan, so that by putting together the evidence of the various Cretan excavations we get a sure basis for our conclusions.

When the assertion is made that it is possible to date Cretan objects it must be understood that the dates are only relatively correct and are attained by a round-about method of reasoning. It happens that the Minoans in certain stages of their development were in close communication with Egypt, and fortunately one can fix the dates of the majority of the Egyptian dynasties with a fair degree of certainty.

The earliest signs of possible Egyptian influence in Crete are displayed on certain ivory seals which occur in Early Minoan deposits. These bear striking analogies to the "button" seals of the VIth Dynasty in Egypt, which dates roughly from 2540 to 2360 B.C. according to Professor Eduard Meyer's system. This evidence is so slight that it cannot be accepted as absolutely fixing the date of the Early Minoan period although this date is the one which best agrees with the data furnished by the Cretan excavations. As we shall see in the following pages, the stone vases from Mochlos furnish additional and more convincing proof that the E. M. period is synchronous with the VIth Dynasty. Better evidence is forthcoming regarding the Middle Minoan period when Egypt again furnishes material for more certain dating than in the preceding case. In 1907 Professor Garstang discovered an undisturbed XIIth Dynasty burial at Abydos which contained a vase of the so-called "Kamares" ware, a fabric peculiar to the M. M. period. With this vase were found purely Egyptian objects including steatite cylinders bearing the names of Sesostris (Senusert) III and Amenemhat III.[1] Similar evidence had already tended to show that the XIIth Dynasty was contemporary with the M. M. II period and this discovery removed all further doubt. The only question is the exact date of the XIIth Dynasty, over which there is a good deal of disagreement among egyptologists. At present the latest evidence points to a date about 2160 B.C. as most probable. This date also agrees best with Minoan chronology.

An inscribed alabastron lid of King Khyan found at Knossos would again connect Crete with Egypt during that confused period which lay between the XIIth and the XVIIIth Dynasties. Unfortunately we are unable to assign a date to this king who appears to have been one of the Hyksos conquerors of Egypt. The alabastron lid was found in a deposit which marked the dividing line between

[1] A. J. Evans, *Ashmolean Museum Report*, 1907.

the M. M. III and L. M. I periods at Knossos; to this Dr. Evans would assign the date of about 1600 B.C.[1]

Again in the XVIIIth Dynasty under Thothmes III we find Crete figuring largely on Egyptian monuments, and the "Keftiu" or Minoans appear in more than one wall painting, notably those in the tombs of Rekhmara and Senmut at Thebes. We know from various bits of evidence that the XVIIIth Dynasty was contemporary with the L. M. II period in Crete, and as Egyptian chronology is fairly certain for that dynasty, we get a date of 1450 B.C. for this second part of the Late Minoan epoch.

Of still later date are the quantities of L. M. III pottery yielded by the excavations at Tell-el-Amarna, the capital of the heretic king, Akhenaten. We know that this sort of ware never appears at Knossos until after the destruction of the second palace. If we accept Professor Meyer's date of 1380 B.C. for the accession of Akhenaten we must place the overthrow of Knossian power at a slightly earlier date, which would be according to Dr. Evans soon after the middle of the fifteenth century B.C.

Thus it will be seen that without the assistance of Egypt it would have been very difficult, if not impossible, to assign any dates to the various phases of Minoan culture. Even now the dates of the Early Minoan period are rather uncertain, and as regards the long neolithic culture which preceded it we are as much at sea as ever.

The Early Minoan Period

When Dr. Evans' scheme of Minoan chronology was published in 1904, our knowledge of the first of its three main divisions, the Early Minoan, was still more or less vague. At Knossos almost all traces of the E. M. I, II and III periods disappeared when the summit of the hill was cut away at the beginning of the M. M. epoch to form the level space necessary for the construction of the first palace. The pottery which lay between the floor levels of this M. M. I palace and the underlying neolithic deposit seemed to fall into three main classes. Wherever stratification could be clearly observed these three classes were found to succeed one another always in the same order. It is true that these remains were of very fragmentary character, but enough was found to enable the excavators to draw up a rough table of the various styles of pottery and their relations to one another in point of age.

No well-defined floor levels of the Early Minoan period were found at Knossos until 1908. In the meantime evidence had been

[1] *Scripta Minoa*, Vol. I, pp. 30–31.

accumulating in other parts of the island, and the Knossian floor levels merely confirmed the evidence of Vasiliki and other East Cretan sites without throwing any very new light upon this early culture. It is to these East Cretan sites that one must turn for a better knowledge of the Early Minoan epoch. Unlike the palaces of Knossos and Phaistos, these small towns have yielded great masses of Early Minoan objects, thus filling a wide gap in our knowledge of the development of Minoan culture.

Of E. M. I pottery we still know very little. It seems to have formed a connecting link between the late neolithic ware of Knossos and the succeeding incised sub-neolithic and mottled vases of the E. M. II period. No site in the neighborhood of the Isthmus of Hierapetra had produced a well-defined E. M. I deposit until, in 1908, a certain quantity of this ware was found in the early cemetery of Mochlos. The examples from this deposit show little skill on the part of the E. M. I potters. They are inferior both to the preceding neolithic vases and to the mottled ware of the succeeding period, although in shape they show a close connection with both. In these E. M. I sherds from Mochlos the dark clays of the neolithic period predominate, but on no fragments do we find incised designs nor do they possess the highly polished surface of the true neolithic ware. Great numbers of clay spoons or ladles were found; also many examples of the goblet type of cup (see Fig. 23, No. VI, 11) which is characteristic of the E. M. I period at Knossos, but which in Eastern Crete lives on through the E. M. II epoch.

A few fragments of jugs show that this shape must have made its first appearance toward the close of the E. M. I period. In these the handle has always been attached by forcing it through the wall of the vase while the clay was still moist, a method noted at Phylakopi[1] and at Palaikastro.[2] As a whole this E. M. I ware is characterized by rough hand-made vases of grey, black, and red clay of coarse, gritty quality. The vases often have round, or nearly round, bottoms after the manner of gourds, from which they were doubtless copied, and are usually furnished with ridge handles pierced for suspension (*i.e.*, solid ridges of clay set horizontally on the body of the vase). At Mochlos only one painted sherd was found in the deposit mentioned above, and, as it is of the geometrical E. M. II style, it probably dates from the very end of the E. M. I period, or else it may have worked its way down from an upper level.

E. M. I vases have been found on several other sites. The curious deposit from Hagios Nikolaos near Palaikastro belongs

[1] *Phylakopi*, p. 94. [2] *B. S. A.*, Vol. X, p. 200.

to this period,[1] as do certain vases from rock shelter burials at Zakro,[2] Hagia Photia and Gournia.[3] In the Messara, examples have occurred in the early domed tombs (tholoi) discovered by Dr. Xanthoudides, and by the Italians at Phaistos and Hagia Triada, though in no case in sufficient quantity to furnish us with much material upon which to work.

The first important discovery of E. M. II pottery was made in 1904 at Vasiliki,[4] where a well preserved settlement of the E. M. II and E. M. III periods came to light. The stratification was clearly marked and showed that the E. M. II period passed through two stages of development. The first was characterized by sub-neolithic incised vases of fine grey clay and by a painted ware bearing geometrical dark designs on a hand-polished buff ground. This latter style, after suffering a complete eclipse in the E. M. III period, was revived in the M. M. I epoch and so closely copied that it is, at times, very hard to tell to which period vases of this sort belong. The best means of classifying them is by their shapes, which in the M. M. I examples had been considerably modified and no longer presented the extreme forms popular in E. M. II wares.

Shortly after the beginning of the E. M. II period, a third style of pottery made its appearance. This new ware was covered with a hard paint of good quality which, owing to a curious method of firing, has assumed a most brilliant mottled surface shading from red and orange to black.[5] In shape these new vases were far in advance of the vases of the two earlier fabrics with which they were associated. This ware, made of fine-grained, buff clay, is chiefly characterized by tall beaked jugs and bowls with long side spouts which give the vessels an absurdly bird-like appearance. Although no vases are properly wheel-made before the M. M. I period, certain concentric striations noticeable on the insides of these mottled vessels show that they were turned while still soft on some sort of primitive appliance probably worked by hand. Though few in number at the beginning of the E. M. II period, the mottled vases, shortly after their first appearance, entirely superseded the incised and dark-on-light geometric wares, and in the latter part of the period we find them used to the entire exclusion of the two earlier fabrics.

[1] *B. S. A.*, Vol. IX, p. 339. [2] *B. S. A.*, Vol. VII, p. 144.
[3] *Gournia*, p. 56, Figs. 37, 38.
[4] *Trans.*, Vol. I, Part III, p. 207; *Gournia*, p. 49, Plates XII and B.
[5] *Gournia*, Pl. B.

At Knossos, as has been said, some floor levels found in 1908 contained undisturbed deposits of this period, but by far the best examples come from a large house at Vasiliki. This house, which dates from the latter part of the E. M. II period, contained only vases of the mottled technique. Later it was found to overlie a still earlier building which contained examples of all the three classes which are assigned to the E. M. II period. In the Messara, at Koumasa and Porti, Dr. Xanthoudides found vessels of similar type. They were also found at Palaikastro.[1] The E. M. II vases from these sites, although identical in shape with those from Vasiliki, are usually of dull red clay and lack the brilliant mottled surface of the vases found on the Isthmus of Hierapetra. It would thus appear either that the potters of Vasiliki used a clay of better quality, or that their methods of painting and firing differed from those of their contemporaries in other parts of the island.

Just at the end of the E. M. II period a new ware made its appearance. Though reproducing all the shapes of that period, it originated a new technique in which a geometrical design was applied in yellowish white on a ground of dark glaze-paint. The old mottled fabrics of the E. M. II period did not yield immediately to this new style, which is known as E. M. III. At first the two wares existed side by side, but gradually, as the new technique gained ground, the mottled vases decreased in number and at length completely disappeared.

That the E. M. III period was of long duration seems clear. In its earlier stages we find the mottled and new light-on-dark geometric wares existing side by side, with the same forms common to both. As the mottled vases disappear, the extreme shapes of the previous period undergo considerable modification; the necks of the jugs grow shorter, the long side spouts shrink to half their former size, and by the time polychromy makes its appearance it is hard to determine from shape alone whether the vases should be classed as belonging to the E. M. III or the M. M. I period. Another reason for allowing a long duration to this period is the enormous quantity of the light-on-dark geometric ware that is found on early sites on and near the Isthmus of Hierapetra. The first large deposit was found in 1904 at Gournia, where a great heap of these sherds had been piled up just outside the town limits.[2] This heap was composed of thousands of fragments of the light-on-dark geometric ware and must represent accumulations of a long term of years.

[1] *B. S. A.*, Vol. X, p. 197, Fig. 1. [2] *Gournia*, p. 57; *Trans.*, Vol. I, Part III, p. 191.

At Palaikastro E. M. III vases were found in 1903 stratified above the E. M. II wares.[1] Gournia, where stratification could be observed, furnished similar data. Thus the chronological sequence of the mottled and the light-on-dark geometric styles was fixed even without the evidence of Vasiliki, where the stratification was best defined. There in 1906 a number of mottled sherds were found lying at the bottom of a deep pit, probably an unfinished well, the rest of which was filled with great masses of E. M. III vases.[2] At Zakro and at Hagia Photia, E. M. III vases occurred in the rock shelter burials already mentioned on p. 8. At Koumasa and Porti in the Messara several large tholoi of the Early and Middle Minoan periods have been cleared. These great burial chambers, which evidently served as town charnel houses, confirmed the evidence of Eastern Crete on all the main points. Certain minor differences due to local varieties of form and decoration were observed; each small settlement had its own methods of vase making and the clays used differed widely in various parts of the island.

At Hagia Triada the Italian Expedition also cleared a similar tholos of large size which yielded many small vases and objects mixed with the remains of hundreds of bodies.[3] These tholoi of the Messara, since they remained in use until some time in the M. M. I period, do not furnish such good evidence for the classification of objects as do well stratified town sites or even the small graves of Eastern Crete, where a tomb and the objects it contains often belong to one period, if not to a single interment.

Curiously enough no tholos of the Messara type has been found in Eastern Crete, nor do the cist graves and chamber tombs of Eastern Crete appear in the Messara. There is no reason to suppose that this indicates any difference in race between the inhabitants of the two parts of the island, as the objects associated with both types of burial can belong only to one race and culture, so similar are they in all their main aspects. The tholos never appears in Eastern Crete until the L. M. III period and then must be regarded as a type borrowed from the Greek mainland rather than the survival of the early tholoi of the Messara.

Although the Early Minoan deposits at Vasiliki, Gournia and Palaikastro were remarkably rich in pottery, they gave but little idea of this early culture as a whole. Here the gap was partially filled by the Messara tholoi, which yielded examples of weapons, stone vases and seals. The weapons were for the most part short

[1] *B. S. A.*, Vol. XI, p. 271, Fig. 5.
[2] *Trans.*, Vol. II, Part II, p. 118.
[3] *Mon. Ant.*, Vol. XIV, p. 678.

triangular daggers, although at the beginning of the M. M. I period a more slender form appeared. The seals were of ivory and presented many striking analogies with Egyptian seals of the early dynasties, especially with those of the VIth. Marble idols of the Cycladic type proved that these burials were contemporary with the discoveries at Syra, Amorgos and other islands of the Cyclades.[1]

At Vasiliki in 1906, in a rock-cut well, some fragments of thin bowls of colored marbles and limestone were found with E. M. III objects.[2] In workmanship they were so far in advance of all that was known of the E. M. period that it seemed hardly possible to accept them as belonging to it. In reality they were the first examples of E. M. stone cutting, such splendid specimens of which were to be discovered two years later. In 1907 an early cemetery was found on the island of Pseira; its graves contained numbers of vases of clay and stone and showed that many shapes of the black steatite vases common in the L. M. I period could be traced back to M. M. I originals and, in some cases, to even earlier types. The graves and their contents indicated a people of poor condition possessing but few objects of metal or of jewelry apart from stone beads. All this fitted in with the data furnished by the primitive-looking pottery, for the stone vases, with one or two exceptions, were of soft materials and poor workmanship. On the other hand, the enormous number of stone vases unearthed pointed to a period in which they were highly prized and extensively manufactured. At Koumasa and Porti many stone vases occurred, but like those of Pseira they were, for the most part, of small size, poor workmanship and soft materials.

It was reserved for the cemetery of Mochlos to throw a new light on the civilization of the Early Minoan periods. This cemetery of twenty-three well preserved graves produced, in 1908, a great mass of pottery, weapons, jewelry and stone vases, the workmanship of which was extremely delicate and entirely unexpected. We can now judge the E. M. II and E. M. III periods by the arts of stone cutting and metal working, as well as by the ceramic art, which is less advanced than the condition of the other two would lead one to expect. These two periods must, therefore, be accepted as the age of stone vases *par excellence*, just as the Middle Minoan period was characterized by polychromy in the domain of painted pottery. In view of these discoveries the word primitive, in its true sense, can hardly be used to describe the E. M. II and E. M. III periods, although it still applies to the E. M. I epoch. Between the end of the latter and the beginning of the E. M. II age the advance in all branches of

[1] Ἐφ. Ἀρχ., 1898–99, Plates 10, 11. [2] *Trans.*, Vol. II, Part II, p. 123.

art except that of the potter must have been astonishingly rapid, and this may indicate that Crete for the first time had been brought into contact with the older civilization of Egypt, a possibility which will be discussed later in connection with the stone vases and the origin of Minoan stone cutting.

If the decorative instinct of the E. M. II and E. M. III artist remained primitive, his knowledge of technique had attained a startling state of perfection for so early a period. He was able to carve vases out of hard materials with great accuracy, giving them a finish as good as that produced by his successors of the great Minoan periods. His eye for color was excellent, and the stones he used in making both vases and jewelry show a high artistic sense. In metal work he was more proficient than could have been expected. Decorative designs, always geometric in character, were his weakest point. It is for this reason that the designs on the painted pottery, particularly those on E. M. II vases, led one to expect a far more primitive culture than really prevailed. The art of soldering was still unknown, although the welding of gold to gold was sometimes practised, and the early Minoan goldsmith could produce gold chains as fine as those of the late Greek period. Already a love of naturalism had begun to affect the artistic development of Minoan civilization. Hairpins were made in the shape of daisies and crocuses, although naturalistic designs were never used for painted pottery before the M. M. I period. This need not cause surprise, for in the development of all races the first artistic efforts are devoted to objects of personal adornment rather than to utilitarian purposes. The Minoan lady of all periods seems to have devoted much attention to personal adornment and it was to cater to her tastes that the earliest artistic efforts were directed.

The great importance of the Mochlos cemetery lies in the fact that it shows the primitive Minoans under very different conditions from those hitherto imagined. It will be seen that long before the Middle Minoan palace walls were reared on the Kephala at Knossos, the Minoans were a wealthy and prosperous people. Although we have no absolute proof, it is probable that they had already entered into communication with Egypt and had begun their career as a great maritime power. Oddly enough this early period in Eastern Crete was one of great prosperity, whereas in the succeeding M. M. periods the eastern towns seemingly dropped back into insignificance. At Knossos the reverse would appear to have been the case, but as yet it is impossible to offer any explanation of this apparently

uneven development in so small an island as Crete. It is probable that one reason for the prosperity of Mochlos was its excellent harbor.

The Cemetery

In 1908, while I was excavating a Minoan settlement on the island of Mochlós for the American School at Athens,[1] my attention was attracted by the great number of potsherds which covered the hillside just outside the western limit of the town. As the presence of a huge, upright slab of stone suggested cist graves of the Cycladic type, men were sent to cut some trenches on various parts of the slope. For the first day or two no actual burials were discovered, but the numbers of E. M. vases and fragmentary stone vessels lying scattered about in the loose soil indicated graves which had been destroyed by denudation. At last, close to the great slab mentioned above, an undisturbed burial came to light, and for the next five weeks the cemetery continued to yield a rich harvest of vases and small objects.

The general position of the burial ground may be seen in Figure 1 (*frontispiece*). It is situated on the extreme left where a light patch, indicating the earth overturned in clearing the various tombs, may be observed. Owing to the steep declivity on which the tombs were placed, many had been completely destroyed by the process of denudation and their contents so scattered that it was necessary to clear the entire hillside, the soil of which was found to be filled with objects from tombs which had otherwise disappeared.

The cemetery falls naturally into two sections: the first is the hillside just mentioned, covered with tombs of small size and various types; the second consists of six large ossuaries or burial chambers. These lay apart from the main slope farther to the northwest along a narrow ledge of rock. Several types of tombs seem to have been equally popular with the inhabitants of Mochlos and are briefly described below in chronological order:

1. The first and most important were the ossuaries or chamber tombs, which date without exception from the E. M. II and E. M. III periods. These were of large size and were entered through doorways closed by huge upright slabs of stone.

2. The tombs of the second type, which resemble the Cycladic cist graves, had their walls formed of upright slabs of stone. Tombs of this sort are always Early Minoan. In many cases they con-

[1] *A. J. A.*, Vol. XIII, 1909, p. 273.

tinued in use during the M. M. age, but they are never of M. M. construction.

3. Associated with the cist graves was a third type of tomb which was not only popular with the Early Minoans but was employed throughout the Middle Minoan period. In this class the walls of the tomb were built of small stones and were quite similar to those found in house construction. In several cases an Early Minoan tomb showed a combination of this type with the preceding one and had walls partly formed of upright slabs and partly built of small stones.

4. Fourthly, there were a few examples of burials in holes in the rocks with no walls of any sort. These usually dated from the E. M. period and contained but few objects and those of poor quality. A small cave which was cleared yielded a great mass of bones and two clay vessels of E. M. II date.

5. Lastly, in the M. M. III and L. M. I epochs, a new type of burial made its appearance. In these periods the bodies were placed in large terra-cotta jars or pithoi, several of which were found standing upside-down in the surface soil over the earlier tombs.

No system of orientation was followed in building these tombs and they lay in whichever direction best suited the slope of the hill on which they were placed.

THE NORTHWEST GROUP OF TOMBS

Northwest of the cemetery a narrow ledge of rock extends along the face of the cliff for about 100 yards. On one side a precipice looms overhead and on the other there is a drop of perhaps 100 feet to the sea below. On this ledge stand the three large tombs shown in Figure 2. These burial chambers are built against the face of the cliff, and two of them have doorways opening upon the narrow path which follows the outer edge of the ledge overhanging the sea. A little farther on this ledge expands, forming a roughly triangular space enclosed on two sides by towering walls of rock, and on the third there is a sheer drop of 100 feet to the sea.

On the northern side of this triangle lie three more large chambers with their doorways opening to the south upon a roughly paved court (see Fig. 16). The walls of this group still stand to a considerable height. The tombs were entered by doorways with well-built jambs, and in the central one of the three the door, a huge upright slab of stone, was still in place. From evidence which will

FIGURE 2. CHAMBER TOMBS NOS. I, II AND III

be discussed later (p. 45) it seems probable that these chambers were roofed with some light material.

These ossuaries, as they might be called, all dated from the Early Minoan age, at the end of which they were abandoned. In the M. M. III period they seem to have been partially cleared, for many objects of this date were found lying in the surface soil over the earlier burials. These later deposits rarely contained painted pottery, or in fact anything of value, with the exception of a couple of seal stones and some knife blades. A deposit of this date in two of the large chamber tombs (Nos. II and IV) contained inverted jars, one in one tomb and two in the other. They were of typical M. M. III shape, without decoration, and contained neither bones nor other objects. Another inverted jar of exactly similar shape was found built into a low wall nearby. This contained a deposit of curious ashy-grey earth which, by comparison with similar deposits in burial jars found at Gournia, we now know indicates human remains.[1]

THE MAIN SLOPE

On the main slope seventeen distinct tombs of small size were opened. Originally there must have been quite double that number, judging by the mass of pottery which covered the hillside. These tombs are all rectangular, slightly longer than they are wide, with their longer sides set parallel to the slope of the hill. Unlike the large chamber tombs they seldom possess slab-filled doorways. They often lack a wall to close the lower end which faces down the hill, but this usually indicates either a late interment in an early tomb or that the wall has been overthrown by the pressure of the soil above.

As a rule the tombs measured about one metre by two metres and, as very few of them exceed these dimensions by more than a few centimetres, it is probable that all were intended to be about the same size. Each tomb contained the bones of several bodies, and it is certain that these bones belonged to secondary burials rather than to original interments. In one case the remains of as many as thirty skulls were counted, all lying in a heap at one end of the tomb. In many of the tombs, as in the large ossuaries, the bones lay together at one end, leaving the rest of the chamber free. The small tombs were never roofed and even the cist graves never

[1] The finds at Gournia are to be published by Miss Hall in *Anth. Publ.*

possessed the capping stones common to the corresponding Cycladic type.

The burials on the main slope belonged for the most part to the E. M. II and E. M. III periods. A few M. M. I interments were found and five early graves had been partially cleared and used again in the M. M. III period. In some cases the objects in a tomb all belonged to one period, but more often it was clear that the bones had been placed in the tomb at widely different dates, a circumstance which produced more or less confusion. Luckily, as has been said, the largest and most important chamber tombs were abandoned in the E. M. III period. This fixes the date of the objects found in them with a fair amount of certainty, as in only a few cases were they disturbed in the succeeding periods.

No signs of cremation were found in any part of the cemetery. The bones and teeth in no case showed marks of fire, although in the tholos tombs of the Messara belonging to the same periods Dr. Xanthoudides has found traces of the burning of the dead.

Some of the nine M. M. III and L. M. I burial jars which were found intact contained the bones of infants and no other objects. Others were quite empty, but it is probable that they too had contained child burials of this sort. The bones which still remained in some of these jars were of the most fragmentary nature and fell to pieces as soon as they were touched. It is not surprising, therefore, that the unpainted jars in the upper strata of the chamber tombs contained no bones, and there can be little doubt that they were in reality burials of this description, the bones of which had entirely disintegrated. On the main slope parts of six more such burial jars, which had been carried from their original position by denudation, came to light. These too are only large enough to have contained the bodies of children, so that we must suppose that the main part of the M. M. III and L. M. I cemetery lay elsewhere.

The Mochlos tombs all contained a filling of sticky white clay differing widely from the natural brown earth of the hillside. A destroyed burial could always be recognized by this clay even when the walls had vanished. At Mochlos this soil was certainly foreign to the site as it was entirely different from the earth outside the enclosing walls of each grave. The workmen maintained that it was a species of clay found on the neighboring mainland which they use today for the flat clay roofs of their houses. The cemetery on the island of Pseira, no full description of which has yet been published, lay on the slope of a hill composed of similar soil. This clay at

Mochlos has had a marvelously preservative effect on all stone vases except those of black steatite, which were almost without exception badly rotted. Clay vases were variously affected by it. In some cases the surface had entirely disintegrated, probably owing to some error in firing when the vases were made. The mottled, the red burnished and the black bucchero wares were as a rule in very bad condition, and the entire surface of the vases flaked off in large scales. Other vases, especially those with polished buff slips, had survived in a remarkably fresh state. This seems always to be the case in later periods such as L. M. III, when vases with a polished buff slip are quite undamaged by their long burial in this clay. The ware that suffered most at Mochlos was the light-on-dark geometric style of the E. M. III period; in almost all cases the white paint on these vases had quite disappeared.

Bronze, wherever it was sufficiently covered with soil to protect it from the infiltration of the winter rains, was well preserved, silver was badly corroded, but gold, naturally, remained unaffected by the action of time. Ivory, though found in very small quantity, was well preserved, although human bones were reduced to the consistency of paper and only one skull could be saved out of the many fragments.

THE CHAMBER TOMBS

These large tombs, six in number, are the earliest as well as the most important in the Mochlos cemetery. They lie, as has been said, on the northwest face of the island along a narrow ledge above which rise precipitous cliffs. Their isolation and the richness of the objects which they contained lead to the supposition that they were the burial places of the ruling or princely families of the E. M. settlement at Mochlos.

Of these tombs, which are of E. M. II and III date, Nos. II and VI contained the richest deposits; in Nos. I and V only a few objects were found but these of good quality. The remaining two, Nos. III and IV, were thoroughly plundered in the M. M. period.

The tombs Nos. I, II and III are shown in Figure 2. They lie side by side along a narrow ledge of rock. Nos. I and III face west and open upon the ledge, but No. II lies with its longer axis running north and south and with its entrance at the south end. Figure 3 is a sketch plan showing the general position of these three tombs. The photograph shown in Figure 2 is taken from the north side of Tomb III looking south. One of the two doorways of No. III appears in the central foreground. No. I lies beyond,

the south wall of No. III forming the north wall of No. I. Still farther beyond lies Tomb II, marked by the huge upright slab which forms its western wall. The tomb chamber occupies the space between this slab and the cliff. Along the west front of these tombs runs the narrow path by which they were reached. The drop from here to the sea was very abrupt; it appears, in the photograph, as a gradual slope because of the earth and stones which were thrown out in clearing the chambers. In the background across the very narrow channel appears the mainland of Crete with the warehouses of the modern port.

Tomb I

As may be seen in Figure 3, this tomb has a double doorway and an interior partition wall dividing it into two narrow chambers. Both doors were closed by large slabs, and the walls are faced in the same fashion. The left-hand chamber measures 3 m. in depth and 1.10 m. in width; the second chamber is 2 m. deep and 60 cm. in width. The wall at the inner or east end stands 1.60 m. in height.

Nothing was found in the left-hand compartment. The other was filled with the remains of many bodies. There were parts of at least thirty skulls mixed with a confused mass of other bones. This burial deposit was 1 m. deep, and above it was a filling of earth and small stones 20 cm. in depth. In the earth of this artificial filling, lying on the surface of the white clay which contained the early interments, was found a chalcedony seal stone of M. M. III date which is shown in Figure 6, No. I, *s*. In and above this filling were fragments of M. M. III pottery, but no signs of a burial of that period, nor was there any evidence that would point to an attempt to plunder the early deposit.

The objects found in this tomb are as follows:

I. *a* (FIG. 4). Dish or cover of black burnished ware (height 13.5 cm., diameter 17.8 cm.). This is an example of a class of vessels which frequently occurred in the cemetery. It is very doubtful whether they are really covers or merely the prototype of the Middle Minoan "fruit stand" like that from Palaikastro.[1] Of the many recovered,—often two or three from one grave,—none was ever found with a vase to which it could possibly have belonged. Now, since it is improbable that covers were placed in a burial deposit without their vases, another explanation is imperative. Among the E. M. I vases in Figure 48, we find a very small dish (No. 34)

[1] *B. S. A.*, Vol. IX, p. 308, Fig. 8.

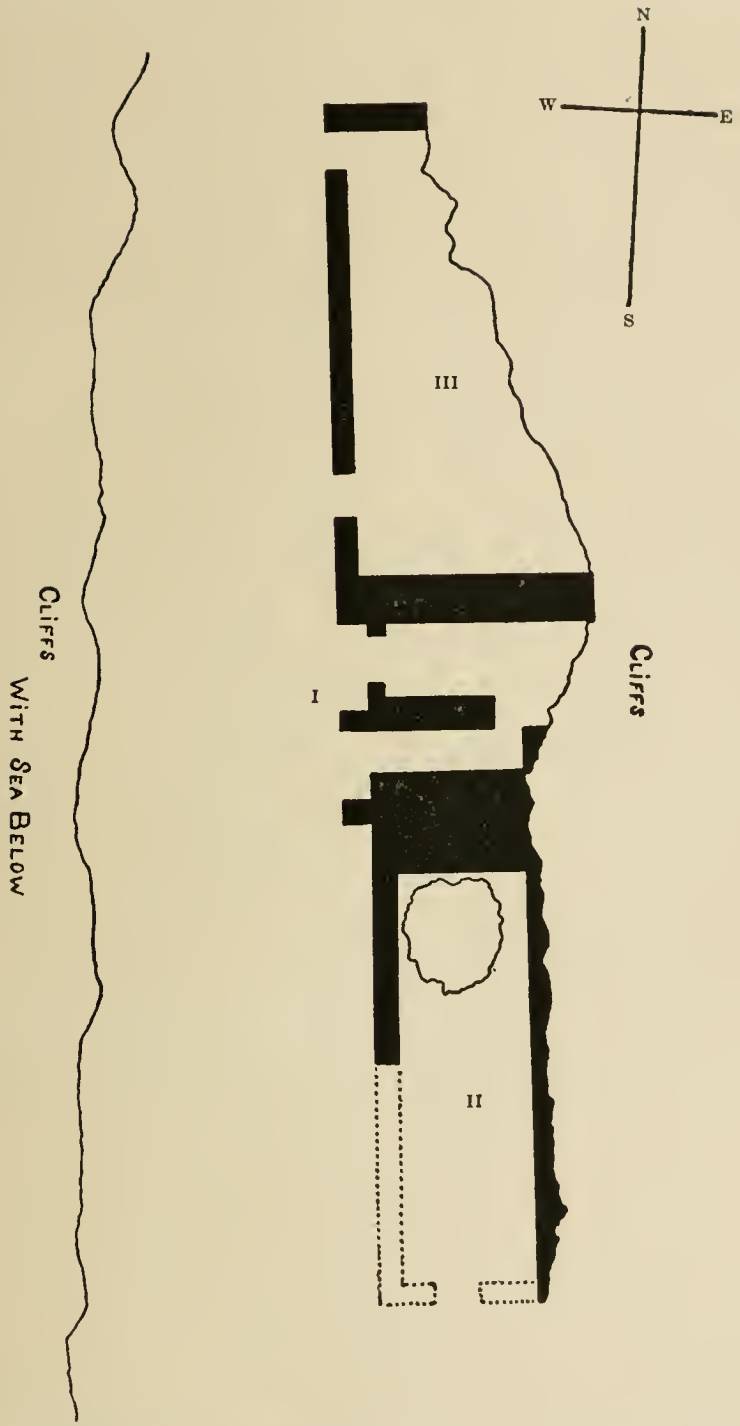


FIGURE 3. CHAMBER TOMBS NOS. I, II AND III. SCALE 1 : 100

on a short foot, which certainly bears a striking resemblance, on a small scale, to these larger burnished vessels. In the case of this little dish there can be no question as to its use, since the clay lump on the foot is clearly a handle by which to lift it as a dish. Fragments of both the large vessels and these small dishes occurred frequently in a deposit of E. M. I ware from the cemetery. The little dishes were perhaps for votive use and may have served as substitutes for the larger vessels like that in question from Tomb I. Another vase similar to No. I, *a*, was found with it but so badly rotted that it could not be preserved.

I. *b* (FIGS. 4, 13). Small jug of highly polished buff clay with two diagonal bands of cross-hatched triangles on the shoulder (height 10.1 cm., diameter 8.5 cm.).

I. *c* (FIG. 4). Bowl of black steatite (height 3 cm., diameter 6 cm.). This bowl was found near the surface of the burial deposit; it may belong to the M. M. III period like the carnelian seal, Figure 6, No. I, *s*.

I. *d* (FIG. 4). Small jug of grey and white marble (height 3.5 cm., diameter 4.7 cm.).

I. *e* (FIG. 4 AND PL. IV). Unfinished bowl of grey and orange breccia (height 6.4 cm., diameter 8.5 cm.). The unfinished state of this bowl would tend to prove that these vases were made in the town of Mochlos. Either this vase was not ready at the time of the interment or else the flaw in the rim caused the maker to leave it uncompleted. It shows that the vases were roughly chipped into the required shape and then polished. In this example the rough surface is still visible around the base.

I. *f* (FIG. 4). Bowl of alabaster with a rim spout and three lip handles (height 5.4 cm., diameter 13 cm.). This is a brilliantly veined piece of stone like that used for the vases of Plate IV, No. V, *i*, and Plate V, No. VI, 2.

I. *g* (FIG. 4). Tiny bowl of translucent green steatite (height 1.5 cm., diameter 4 cm.).

I. *h* (FIG. 4). Small jug of grey marble (height 3 cm., diameter 3.8 cm.).

I. *i* (FIGS. 4, 5). Cover of green steatite with incised design and handle in the form of a dog (diameter 11 cm.). This handle is the earliest attempt at animal modeling found in the cemetery. The

FIGURE 4. SCALE ABOUT 2:9

dog is interesting as it represents a canine type which still exists in Crete today. In any Cretan village one can see dozens of crop-eared dogs of the same peculiar long-legged and emaciated type which served the Minoan artist as his model for this handle some 4000 years ago. The ground work of incisions, together with the pierced suspension holes, shows the influence of the incised sub-neolithic ware which was just dying out when this tomb was built. No fragment of any vase to which this cover could have belonged came to light.

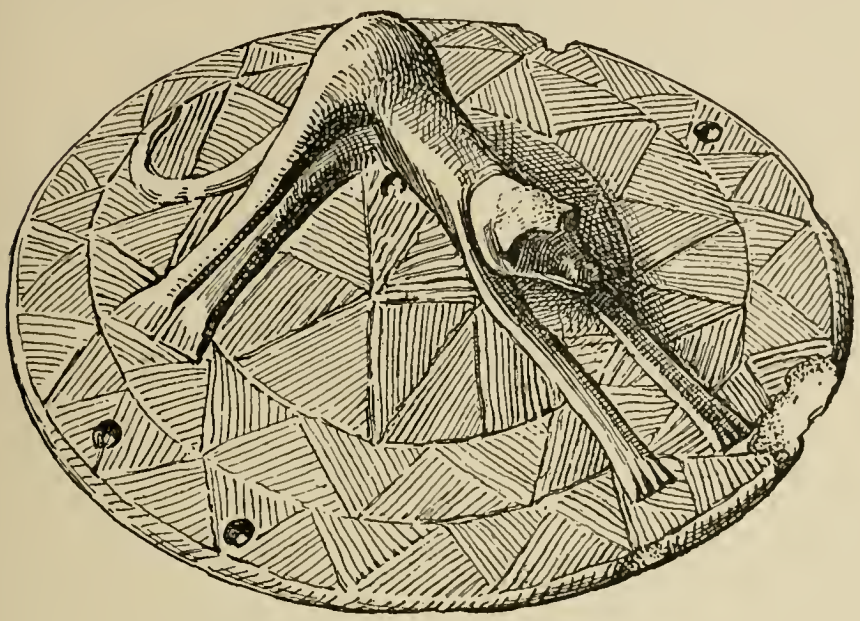


FIGURE 5. STONE COVER FROM TOMB I. SCALE 1 : 1

I. *j* (FIG. 4 AND PL. I). Bowl of grey and white marble with bridge spout and three horizontal handles (height 7.5 cm., diameter 17.5 cm.). This bowl is one of the largest found at Mochlos and is complete except for a small piece of the rim.

I. *k* (FIG. 44). Short triangular dagger blade (length 9.2 cm.). This dagger is probably copper.[1]

I. *l* (FIG. 44). Small cutter with remains of ivory handle (length 3 cm.). These cutters, which are probably of copper, were often

[1] If we accept Sig. Mosso's analyses of Early Minoan weapons, it would appear that they are of almost pure copper and that bronze, if known, was rarely used in the E. M. period (*Dawn Med. Civ.*, pp. 105–110). The Mochlos weapons and toilet articles have not been analysed, but I imagine that if analyses are made, it will be found that no objects are of true bronze before the M. M. I period. See p. 106, note 1.

found in the Mochlos cemetery and, as they are usually associated with depilatory pincers, must have played some part in the intricacies of the Minoan toilet (see p. 107).

I. *m* (FIGS. 6, 36). Large gold bead bearing a rosette pattern (diameter 1.4 cm.). Like a similar bead from Tomb XIX it is evidently copied from vertebral fish bones which were sometimes used to form necklaces in the early periods.[1]

I. *n* (FIG. 36). Silver cylinder seal, possibly of Babylonian origin (length 1.5 cm., diameter of the opening 6 mm.). The design is too worn to be recognizable (see p. 111).

I. *o* (FIG. 36). Electrum lentoid bead (diameter 1 cm.).

I. *s* I. *m*

FIGURE 6. SCALE 1 : 1

I. *p* (NO ILLUSTRATION). Fragment of gold leaf.

I. *q* (NO ILLUSTRATION). Small crystal bead.

I. *r* (NO ILLUSTRATION). Small amethyst bead.

I. *s* (FIGS. 6, 36). Lentoid seal of chalcedony engraved with design of an octopus, two fish and a sea-urchin (diameter of field 2.3 cm.).

Tomb II

This tomb was the richest of the 23 opened in the cemetery. The west wall was clear of soil before excavations began and the great upright slab of which it is formed (shown in Fig. 2) was what first called my attention to this spot as the possible site of the cemetery. The north wall (see Fig. 3) abuts on Tomb I; the west consists of the great slab; the south had been swept away; the remaining east wall was merely a facing of slabs against the natural rock of the cliff which overhangs the tomb. The door, if such existed, must have

[1] *Dawn Med. Civ.*, pp. 205–208; Halbherr, *Memorie del R. Istituto Lombardo*, 1904, Pl. VI, Figs. 25, 26.

been at the south end, but since the wall at this point had been completely destroyed in the process of denudation, its existence cannot be proved.

The tomb measures 1.80 m. in width, the east wall facing the cliff is 5.60 m. long, whereas the west wall, the upright slab, measures only 2.56 m. in length. Probably a second slab of similar size once stood beside the existing one, which would make the tomb a rectangle measuring 1.80 m. in width by 5.50 to 6 m. in length.

The floor is composed of natural rock which is stratified with a decided downward slope to the south. At the upper or north end this floor falls away, forming a roughly circular cavity 70 cm. deep and 1.50 m. at its greatest diameter (see Fig. 3). This cavity seems to have been partly natural, partly artificial, since there is an outcrop of soft stone at this point. The depth from the bottom of this cavity to the top of the north wall is 1.60 m. At the south end the rise of the rock floor reduces this depth to only 1 m.

The surface earth had been disturbed in the M. M. III period, in this as in most of the other tombs. The knife blade of Figure 45, No. II, 52, was found almost on the surface. It is possible that it may be of M. M. III date, but judging from its shape one would be inclined to place it even later, perhaps in the L. M. I period. At the south end of the tomb, also near the surface, was found the slender knife blade of Figure 31, No. II, 51, which undoubtedly belongs to the M. M. III era, as do a large unpainted bowl and jar which lay near it. On the rock floor at this end of the tomb lay many bones but no other objects; in fact the only other part of the tomb which yielded remains was the cavity with the soil immediately above it. It may be that the M. M. III intruders cleared out this part of the original interment but, deceived by the slope of the rock floor to the north, left the bulk of the contents in the deep north end untouched. At any rate the soil for some 20 cm. above the top of the circular cavity seemed not to have been disturbed and contained no M. M. I or M. M. III objects. Two badly preserved vases of E. M. II mottled ware were found at this level, together with the bowl of grey and white stone shown in Figure 7, No. II, *g*. Close to these lay the small clay jug of Figure 7, No. II, *b*, which was the only object in the whole deposit that could be assigned with certainty to the E. M. III period. It is a badly preserved example of the typical light-on-dark geometric ware of this period. At a slightly lower depth lay the clay saucer and jug of Figure 7, Nos. II, *l* and *r*. All the soil at this point was filled with fragments of bones, and as the mouth of the cavity was approached, stone vases and ornaments began to make their appear-

ance in increasing quantities. The bulk of the deposit lay in the last 25 cm. of soil at the bottom of the cavity, most of the gold ornaments piled in a confused heap against its south side. All the objects seemed to have been thrown in promiscuously and were mixed with the fragmentary remains of many bodies. As no later objects made their appearance in the entire deposit or in the soil immediately above the cavity, we may consider the tomb as belonging exclusively to the E.M.II and III periods. Had it not been for the one E.M.III jug, the deposit might have been considered as of E. M. II date only. As it is, the presence of this jug shows that this tomb was in use not only at the end of the E. M. II but at the beginning of the E. M. III period. This date is further confirmed by the ivory seals and the short triangular daggers, which we know from other sites are peculiar to the E. M. age. Though found in both E. M. II and E. M. III graves, fine stone vases were more abundant and of slightly larger size in the earlier of these two periods. The gold work is identical, and we have only the marked change in the style of decoration of painted pottery by which to differentiate the E. M. II and E. M. III periods. Had this tomb stood alone as a solitary example, unsupported by other evidence, one would have been inclined to place the fine gold chains and the stone vases in a much later period. Luckily the entire evidence of the cemetery assigns these two classes of objects to the Early Minoan age, and although one might doubt the evidence of a single tomb, the corroborative proof of an entire cemetery can hardly be disputed. The tomb contained 129 objects, of which 85 are gold ornaments, 15 stone vases, 9 objects of copper and bronze, 4 of lead, 3 of clay and 13 miscellaneous objects of ivory, silver and stone.

The vases are as follows:

II. *a* (FIG. 7 AND PL. II). Bowl of grey marble with a broad vein of white alabaster. At first glance this bowl would appear to be made of two separate pieces of stone fastened together, but in reality it is merely a freak in veining of which the Minoan artist took advantage. This shape seems to have been borrowed from the black burnished E. M. I and II wares, its resemblance to which is increased by the holes in the rim for tying on a cover (height 6 cm., diameter 10.5 cm.).

II. *b* (FIG. 7). Clay jug of the E. M. III period, showing traces of white paint on a black ground (height 8.8 cm., diameter 7.6 cm.). This jug has been mentioned on p. 23 in connection with the date of the tomb.

FIGURE 7. SCALE ABOUT 1 : 3

II. *c* (FIG. 7). Small bowl of pink, white and grey breccia (height 2 cm., diameter 4.5 cm.).

II. *d* (FIG. 7 AND PL. II). Small bowl of opaque green steatite of very fine quality. Of the various stones employed in making these Mochlos vases this species of steatite is capable of taking the highest polish. It seems to have been a rare material, for only seven examples of it occurred and these are all of small size (height 4.5 cm., diameter 6.4 cm.).

II. *e* (FIG. 7 AND PL. II). Small vase and cover in the same material as the preceding (height 7 cm.). This shape is certainly new to Crete. It resembles the "Art Nouveau" vases of the present day and has a decidedly modern look.

II. *f* (FIG. 7). Cup of grey and white marble which recalls in shape the clay cups of the M. M. I period (height 4.8 cm., diameter 4 cm.).

II. *g* (FIG. 7). Shallow bowl of the same material as No. II, *f* (height 3.8 cm., diameter 11.9 cm.). This marble is of harder quality than that usually employed for the Mochlos vases.

II. *h* (FIG. 7 AND PL. II). Cup of translucent green steatite on a foot (height 5.8 cm., diameter 3.2 cm.). This shape is derived from the E. M. II "egg cups."[1] The incised design recalls the sub-neolithic ware of the same period.

II. *i* (FIG. 7). Small spouted bowl of coarse white limestone with three knob handles (height 3 cm., diameter 3.2 cm.).

II. *j* (FIG. 7 AND PL. II). Vase of plain dark grey steatite, a stone which rarely appears in the cemetery (height 7 cm., diameter 4.3 cm.). This vase shows analogies, in shape, with Egyptian vases.

II. *k* (FIG. 7 AND PL. II). Little pot of translucent green steatite (height 4 cm., diameter 2.5 cm.).

II. *l* (FIGS. 7, 13). Clay saucer of E. M. II dark-on-light geometric ware (height 3.7 cm., diameter 14.8 cm.).

II. *m* (FIG. 7 AND PL. II). Tiny bowl of clear yellow alabaster with two lip handles (height 2 cm., diameter 3.5 cm.). This material is rare.

II. *n* (FIG. 7). Small bowl of translucent steatite (height 2.2 cm., diameter 3.6 cm.).

[1] *Gournia*, Pl. XII, No. 15.

II. *o* (FIG. 7 AND PL. II). Pot of alabaster of the same quality as II, *m* (height 3.8 cm., diameter 4.7 cm.).

II. *p* (FIG. 7). Small jug of translucent green steatite (height 3.5 cm., diameter 4 cm.).

II. *q* (FIG. 7 AND PL. III). Grey and white marble bowl on foot (height 7.3 cm., diameter 14.8 cm.). This shape can be closely paralleled in the black burnished ware of the E. M. II period by a bowl from Tomb XX (Fig. 32, No. XX, 1). Similar clay vessels come from Syros.[1]

II. *r* (FIG. 7). Clay jug of E. M. II ware. Bands of dark paint around neck and base (height 7 cm., diameter 5.1 cm.). This jug has been mentioned (p. 23) in connection with the date of the tomb.

The gold ornaments are as follows:

II. 1 (FIGS. 8, 9). Strip of gold worked with dotted design. Two holes are pierced at either end (length 14.5 cm., width 2 cm.). In the drawing of this piece in Figure 9 the line of the original tracing can be distinguished; in cutting it out from the large sheet of gold the maker did not follow exactly the original model.

II. 1, *a* (NO ILLUSTRATION). Similar strip of the same dimensions.

II. 2 (FIG. 8). Strip of thin gold with border of dots. There are holes at either end like those in No. II, 1, and three groups of two small holes along one edge (length 17.5 cm., width 1.4 cm.).

II. 3 (FIGS. 8, 9). Diadem of thin gold, much bent, with three holes at either end for fastening around the head. Along one edge there are three groups of three small holes. Similar groups of holes occur in the edges of nearly all these fillets or diadems. They may have been intended for fastening chains or pendants to the diadem after the fashion of the Trojan jewelry, but in no case was anything of the kind found. This diadem shows signs of hard usage and is full of small pin holes, which would lead one to suppose that it had been worn for some time before it was finally consigned to the tomb (length 19.3 cm., width 3.3 cm.).

II. 4 (FIGS. 8, 9). Diadem of thin gold. The dotted design of animals, apparently dogs, might well belong to the geometric art of the Iron Age rather than to that of the early Bronze Age. There are two holes at either end. Along the upper edge are five places at

[1] *Ἐφ. Ἀρχ.*, 1899, Pl. 8, Nos. 6, 13.

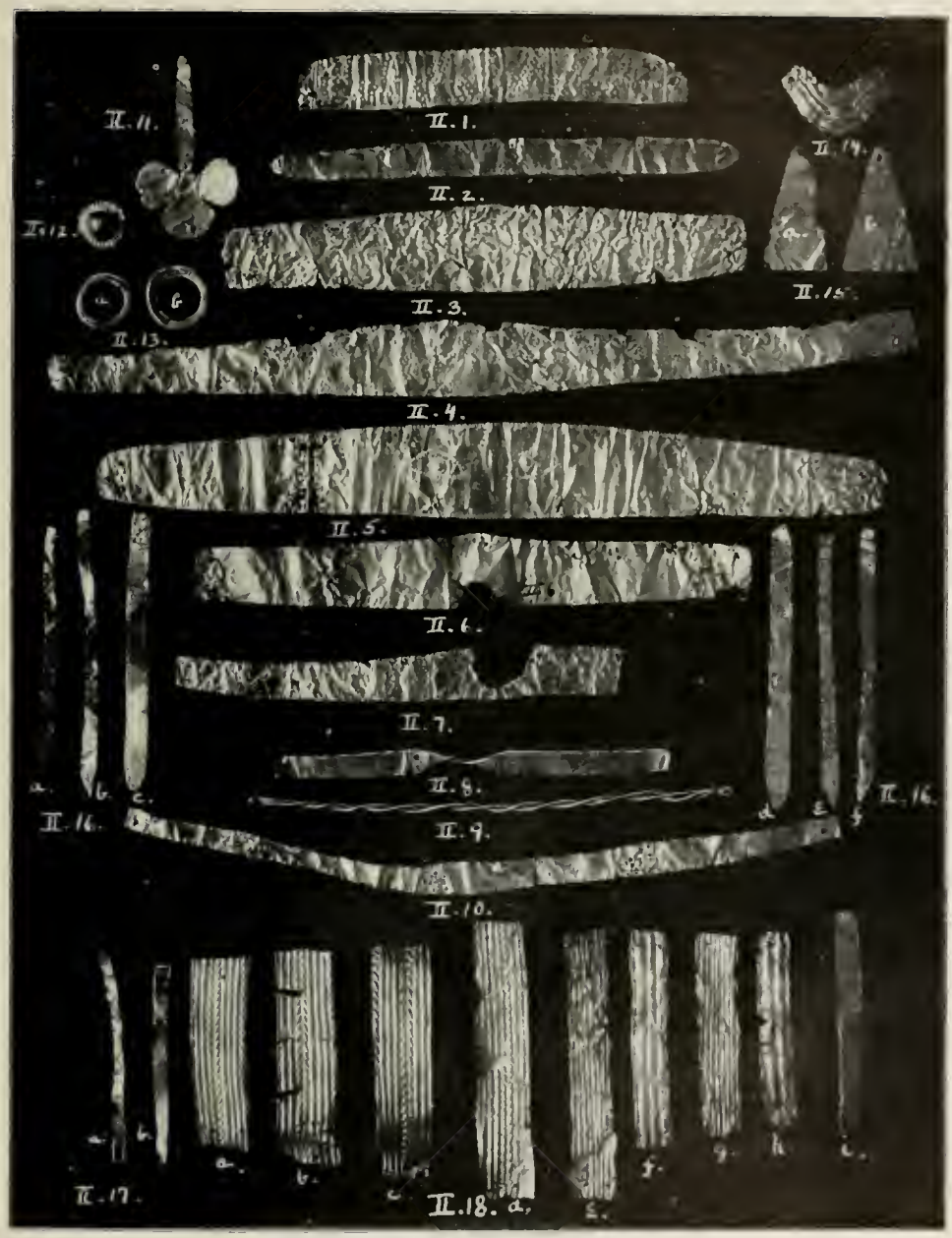


Figure 8. Scale about 2 : 5

regular intervals where the metal has been torn or broken away. It is possible that like the other diadems this one had groups of holes along the edge for pendants and that these had been wrenched off before the diadem was consigned to the tomb (length 32.3 cm., width 3 cm.).

II. 5 (FIGS. 8, 9). Diadem of heavy gold. The metal in this example is much thicker than in the preceding and there seems no doubt that it was actually worn in the lifetime of the owner. The design of dotted lines is punched through from the back, as is the case with most of these ornaments. It has been suggested that these diadems were made solely for funerary purposes and were used for bandaging the eyes of the dead; but this specimen shows such distinct signs of wear that in this case it seems hardly possible. At the left end are two groups of pin holes, showing that the metal had been pierced again and again in order to fasten the diadem more securely on the wearer's head. Along the upper edge are the usual groups of small holes (length 29 cm., width 3.5 cm.).

II. 6 (FIG. 8). Plain diadem of thin gold with three groups of holes along the upper edge and many marks of pin holes (length 20.5 cm., width 2.8 cm.)

II. 7 (FIGS. 8, 9). Fragment of diadem in thin gold with a design of dotted lozenges (length 16 cm., width about 2 cm.). These diadems are very like one of silver found at Siphnos.[1] In the Siphnos example we find the same dotted technique employed. The geometrical designs of animals and conventional patterns so closely resemble the designs on the Mochlos diadems that one must assign them roughly to the same period.

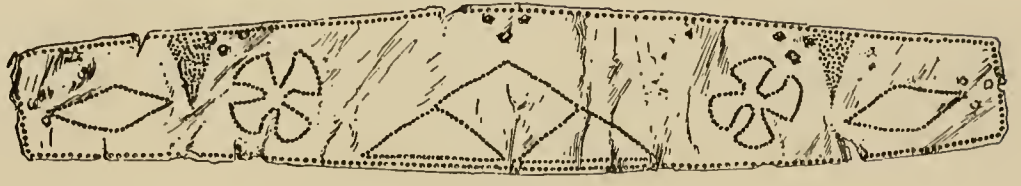
II. 8 (FIGS. 8, 9). This is perhaps an ornament of a similar description, although both ends are missing. At the central point the width of the gold band is reduced to the thickness of a wire, on either side of which is an anchor in dotted lines. Two holes are pierced through the metal close to the stem of each anchor (length 14.6 cm., width 1 cm.).

II. 9 (FIGS. 8, 9). Thin bar of twisted gold pierced at either end (length 18 cm.).

II. 10 (FIG. 8). Strip of thin gold, possibly a small fillet, pattern of dots. There are the usual holes at either end and a network of

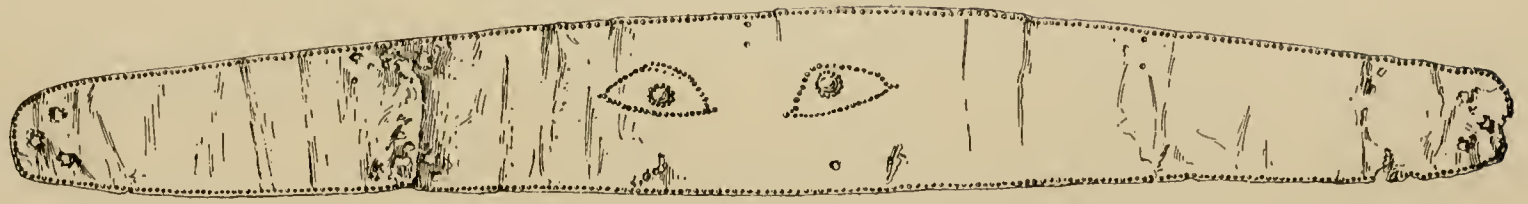
[1] *Ἐφ. Ἀρχ.*, 1899, Pl. 10, No. 1.

II. 1



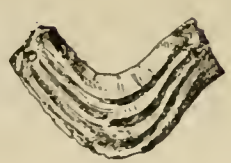
II. 3

II. 4

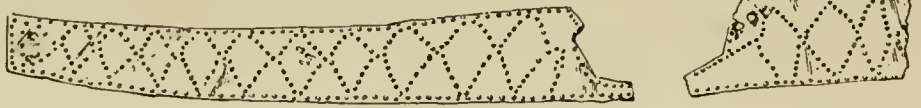


II. 5

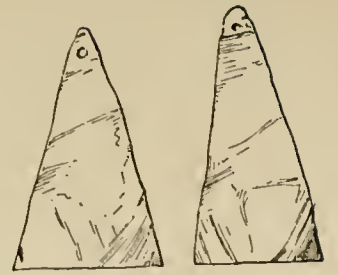
FIGURE 9. SCALE 2 : 3



II. 14



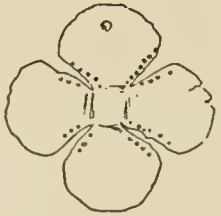
II. 7



II. 15, *a*, *b*

II. 8

II. 9



II. 11, *a*

II. 11, *b*

II. 12

II. 13, *b*

II. 12, *a*

FIGURE 9. SCALE 2 : 3

other holes where pins have been jabbed through the metal (length 27 cm., width 1 cm.).

II. 11 (FIGS. 8, 9). Ornament of thin gold. Evidently part of this ornament has been broken away. The restoration given in Figure 8, where a stem has been added to the gold trefoil, is not correct. Figure 9, No. II, 11, *a*, shows a more probable restoration in which a fourth leaf is supplied, the stem remaining as a separate object (diameter 4 cm.).

II. 12 (FIGS. 8, 9). Boss of gold with a dotted border (diameter 2 cm.).

II. 13, *a*, *b* (FIGS. 8, 9). Two hoops of gold. These hoops were evidently the rims of some object, since they are turned in around the edges as though to grip a core of some sort. It has been suggested that they may be the rims of tiny porcelain vases which have perished and that the gold bosses of Figure 9, No. II, 12, and Figure 10, No. II, 32, may have served as covers. Figure 9, No. II, 12, *a*, shows the hoop and boss together in this form. Such porcelain vases with gold rims have been found at Knossos.[1] (No. II, 13, *a*, diameter 1.9 cm.; No. II, 13, *b*, diameter 2.5 cm.).

II. 14 (FIGS. 8, 9). Object of thin gold, probably an ornament from a dagger sheath of cloth or leather. The design was beaten out over a form bearing the required tooling instead of being worked through from the back as was the case with the diadems (length 4.2 cm., width 1.8 cm.).

II. 15, *a*, *b* (FIGS. 8, 9). Two plain triangular gold ornaments pierced at the narrow ends (length 5 cm., width at bottom 2.5 to 3 cm.).

II. 16, *a–f* (FIG. 8). Six strips of thin gold intended for fastening to garments. All six have dotted borders. Nos. *a*, *b*, *e* and *f* are not pierced at the end, which was folded over some object. In all there are nine such strips. Two others are shown in Figures 10, 11, No. II, 31, *a*, *b*. In length these strips vary from 9 to 10 cm.

II. 17, *a*, *b* (FIG. 8). Two plain strips similar to those described above. They are both pierced at one end (length 7.5 cm.).

II. 18, *a–i* (FIG. 8). All of these nine gold bands, with the exception of No. *i*, are pieces of armlets. Nos. *a*, *b*, *c* belong together and formed an armlet like that from Tomb XVI shown in Figure 38,

[1] *B. S. A.*, Vol. VIII, p. 25, Fig. 11.

No. XVI, 13. It seems to have been cut up intentionally to form a narrow armlet, composed of four pieces, one of which has disappeared. The rivet holes for fastening the pieces together can be seen at the ends of each strip. No. *d* is a part of a similar armlet of poorer workmanship. Nos. *e* and *g* belong together and were originally of the same length, but one end of *g* has been broken off. Nos. *f* and *h* are likewise parts of one armlet and show much coarser tooling than the others. These armlets are of fairly thick gold and, like No. II, 14, were beaten out over a form. The fact that the edges are always turned in may indicate that they were only a facing to a core of perishable material around which the edges were folded. The pieces vary in length from 7 to 10 cm., and are 2 cm. in width. No. *i* is a narrow strip of gold with a dotted border and two holes in one end (length 7 cm., width 1 cm.).

II. 19, *a–h* (FIGS. 10, 11). Eight leaf-shaped pendants of gold. It is possible that these belonged to the diadems and were fastened in the holes noticed in their upper edges. These pendants vary from 2 to 3 cm., in length.

II. 20, 21 (FIGS. 10, 11). A narrow armlet of thick gold bearing a design of lozenges scratched on the surface of the metal. Like the armlets of No. II, 18, this one is formed of two pieces which were riveted together (length of each piece 10 cm., width 1 cm.).

II. 22 (FIG. 10). Six gold beads. The two largest evidently had a core of perishable material as the metal is too thin to have stood alone.

II. 23, *a*, *b*, *c* (FIG. 10). Gold leaves from sprays like No. II, 24. In all twenty such leaves were found some with a dotted border and some plain.

II. 24, *a*, *b*, *c* (FIGS. 10, 11). Sprays of gold leaves probably for wearing in the hair; *a* should have a fourth leaf like those of *b* and *c*, but unfortunately it has been broken off. The leaves vary from 4 to 5 cm. in length.

II. 25 (FIG. 10). Disk of thin gold with dotted border, much crushed. This may have been sewn on a garment as there are some tiny holes around the edge (diameter 5 cm.).

II. 26, 27 (FIG. 10). Two strips of plain gold pierced with holes at either end (length 11 and 9 cm., width 1.4 cm. and 8 mm.).

II. 28 (FIG. 10). Minature copy of the large diadems with similar holes along the upper edge and in the ends (length 7 cm., width 2.2 cm.). This was probably intended solely for burial purposes and doubtless served as a cheap substitute for a real diadem.

II. 29, *a*, *b* (FIGS. 10, 11). Two pins representing a flower, probably a crocus (length 5 cm.).

II. 30 (FIGS. 10, 11). Exquisitely fine gold chain of double links divided into two parts by a leaf-shaped piece of gold. It is attached at the upper end to a hoop of twisted wire and the lower end carries a bell-shaped pendant (length 11 cm.).

II. 31, *a*, *b* (FIGS. 10, 11). Two strips of gold with dotted border; *a* is pierced at either end, *b* at one end only (length 9.5 cm., width 9 mm.).

II. 32 (FIG. 10). Boss of gold like that shown in Figure 9, No. II, 12, but badly crushed (diameter 2 cm.).

II. 33 (FIGS. 10, 11). Cross-shaped gold ornament made of two pieces of metal. It has a dotted border and in the centre four rivet holes for fastening the two pieces together (length of each strip 5.5 cm.).

II. 34 (FIG. 10). Ornament of thin gold pierced with two holes at the upper end. One arm had been broken away; the complete arm is 6.1 cm. in length.

II. 35 (FIGS. 10, 11). Fine gold chain to which are attached seven leaf-shaped pendants at irregular intervals (length 7.9 cm.).

II. 36 (FIGS. 10, 11). Coarser chain of single links with bell-shaped pendant (length 7 cm.). These gold chains, Nos. 30, 35, and 36, together with similar chains from Tombs IV, VI and XIX, are the finest specimens of gold work from the cemetery.

II. 37 (FIG. 10). Two small beads of bronze covered with gold leaf (length 1 cm.).

In addition to the ornaments just described there were pieces of many others, together with a number of scraps of gold foil. As has been said (p. 15), these burials were evidently secondary, and in the removal of the bones from the place of burial to their final resting place in the ossuaries, many of the smaller objects doubtless disappeared. When the bones were placed in the ossuary, the ornaments, vases and weapons were tossed carelessly into the chamber. Many

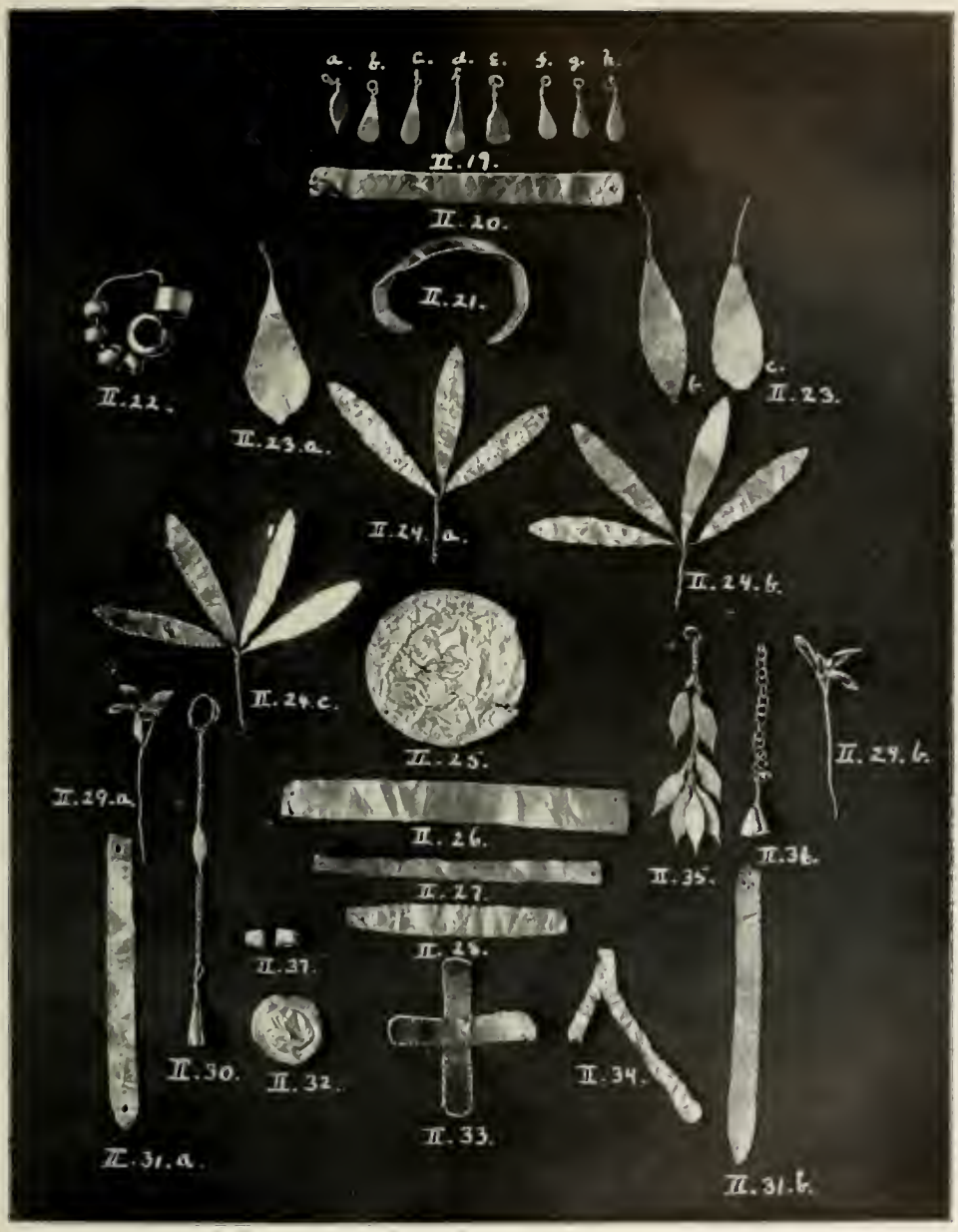
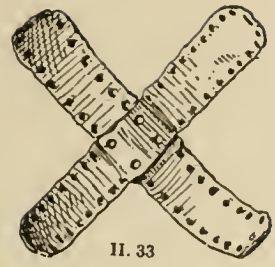
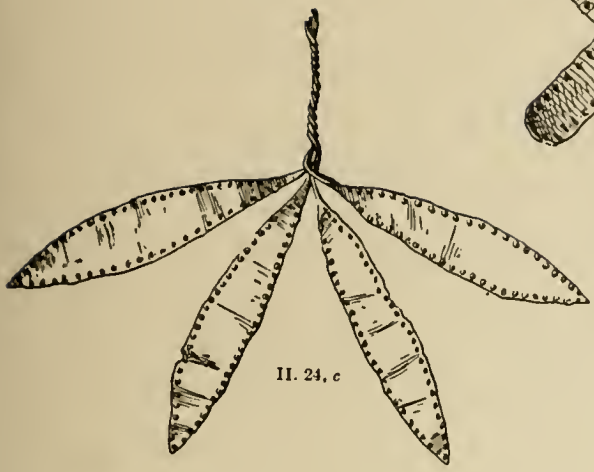


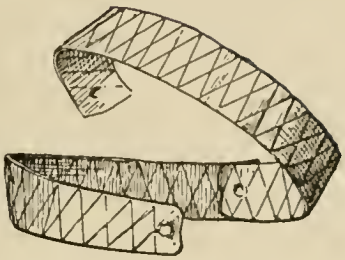
FIGURE 10. SCALE ABOUT 4 : 9



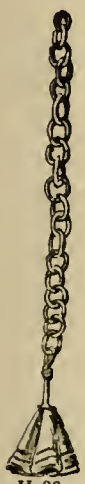
II. 33



II. 24, *c*

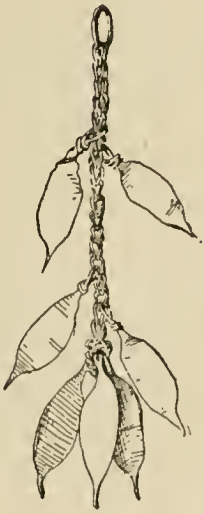


II. 21



II. 36

II. 30



II. 35

a

II. 42

b

II. 29, *a*

II. 19

II 31, *b*

FIGURE 11. SCALE 6 : 7

of the gold objects were crumpled up into little balls, and in one or two cases the diadems were rolled or folded up in a sort of tight packet. This alone is enough to indicate that the bodies were not laid in their final resting place covered with their funeral trappings, whatever may have been the case at the primary interment. When one considers that the bones were moved from one place to another probably some years after they were first interred, it is remarkable that so many offerings still remain.

The remaining objects from the tomb are as follows:

II. 38 (NO ILLUSTRATION). Hollow bone amulet of cylindrical shape, pierced with two holes in the side, one near either end (length 3.2 cm., diameter 1.2 cm.). Similar amulets have been found at Gournia,[1] at Hagia Triada and at Palaikastro.

II. 39, *a–e* (NO ILLUSTRATION). Five strips of ivory inlay with oblique grooving (length 2.5 cm., width 5 mm.).

II. 40, *f–h* (NO ILLUSTRATION). Three similar strips of green steatite of the same dimensions. These strips of ivory and steatite must have been used as inlay of some sort, perhaps for a wooden casket (for other such strips see Fig. 43, No. XIX, 15).

II. 41 (FIG. 12). Large ivory seal with palmette design on one end (length 3.3 cm., diameter of field 2.6 by 2 cm.). This seal had been broken at an early period and was found riveted together by a bronze peg, which would tend to show that such seals were highly prized and not easily replaced.

II. 42 (FIG. 11). Ivory signet seal with design of two cynocephalus apes back to back (height 1.8 cm., diameter of field 1.2 cm.). The design has an Egyptian look. A seal of the same type was found on the town site of Mochlos in an E. M. III deposit.[2]

II. 43 (FIG. 12). Dagger blade, probably of copper, with three rivet holes (length 6.8 cm., width across point of attachment to handle 2.8 cm.).

II. 44 (FIG. 12). Large dagger blade, probably copper (length 12.4 cm.).

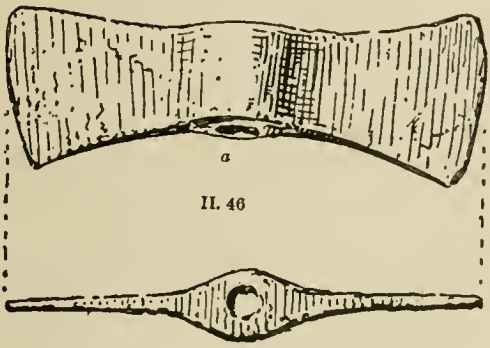
II. 45 (FIG. 12). Dagger blade, probably copper (length 10.4 cm.). This dagger blade had five rivets and is curiously scalloped along the point of attachment to the handle.

[1] *Trans.*, Vol. I, Part III, p. 182, Fig. 2. [2] *A. J. A.*, Vol. XIII, 1909, p. 280, Fig. 3.

II. 44

II. 43

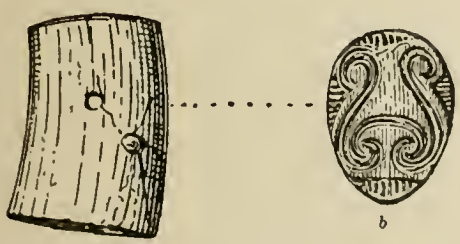
II. 45



a

II. 46

b



a

II. 41

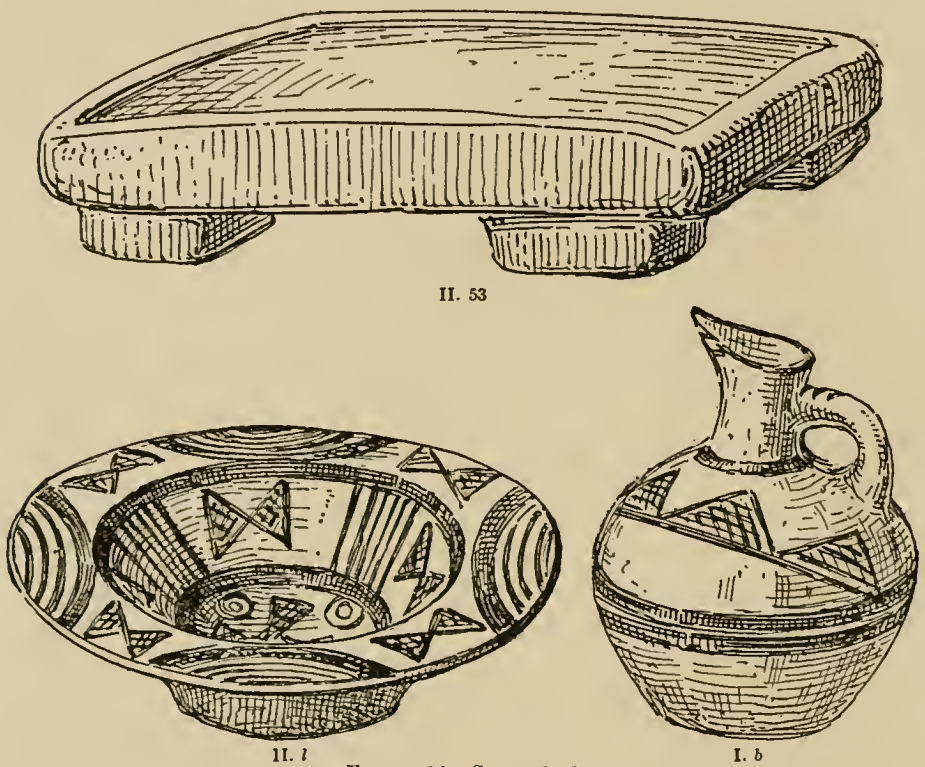
b

XIX. 28

FIGURE 12. SCALE ABOUT 4 : 5

II. 46 (FIG. 12). Small votive double axe, probably copper (length 7.5 cm.).

II. 47, *a*, *b*, *c*, *d* (NO ILLUSTRATION). Four objects of lead. Two of these are double axes like No. II, 46, and bear some relation to two buckle-shaped objects to which they correspond in size. Thus the larger axe and the larger buckle are 6 cm. in length, while the small axe and small buckle are only 4 cm. long.



II. 53

II. *l* I. *b*

FIGURE 13. SCALE 1 : 2

II. 48, *a*, *b*, *c* (NO ILLUSTRATION). Parts of depilatory pincers. Nos. *b* and *c* were evidently parts of one pair formerly set in a handle of some perishable material. The blades are of bronze or copper (length 7.7 cm.). *a* is half of a similar pair in silver (length 4 cm.). For similar pincers see Figure 44, No. XIX, 25, *a*, *b*.

II. 49 (NO ILLUSTRATION). Tiny knife blade, probably copper, with five rivet holes for a handle (length 5.6 cm.).

II. 50 (NO ILLUSTRATION). Small cutter, probably copper, with remains of an ivory handle attached to the rivets (length 3.3 cm.). This cutter is of the type of Figure 44, Nos. I, *l*, and XIX, 29.

II. 51 (FIGS. 31, 45). Long, slender, bronze knife blade with a raised midrib and a design like a Maltese cross near the point of attachment to hilt (length 20.5 cm.). This knife blade was found at the disturbed south end of the tomb in the M. M. III level (see p. 23).

II. 52 (FIG. 45). Broad, heavy, bronze knife blade (length 20.3 cm.). This was found close to the surface of the soil and, from its shape, would appear to belong to the L. M. I period.

II. 53 (FIG. 13). Stone color table (length 21 cm., width 16 cm., height 5.5 cm.). This was found in the soil just outside the south end of the tomb.

Tomb III

Tomb III is a large rectangular enclosure built against the face of the cliff on the north side of Tomb I (see Fig. 3). The outer or west wall measures 6 m. in length; the width varies from 3 m. at the south to 1.70 m. at the north end owing to the outward slope of the cliff at the back. The size of the room, which shows no sign of a partition wall, two entrances and the absence of bones make it possible that it never was a tomb proper but merely a building connected with funeral rites of some sort. Whatever objects may have been placed there in Early Minoan times, it had been so thoroughly overhauled in the M. M. I and III periods that little remained belonging to the early deposit. The soil, owing to the slope of the ledge, was very shallow, so that the contents of the chamber could be reached without much labor, whereas in Tombs I and II the depth of earth successfully deceived the robbers of later periods.

The natural rock of the floor slopes upward from south to north, and in the deepest southeast corner were found a few bits of gold foil and other objects which evidently belonged to either the E. M. II or the E. M. III period. These are probably the remains of an E. M. burial, as the metal work is of the same character as that found in Tomb II, but, as has been said, the chamber was so disturbed in the Middle Minoan period that little can be stated with certainty. In the M. M. I tombs on the main slope very little gold was found, and precious metal in the Mochlos tombs usually dates from the period of greatest prosperity, which is undoubtedly the Early Minoan.

It is not easy to understand the presence of M. M. I and M. M. III objects in and near these big chamber tombs, as they are seldom associated with human remains. They might be taken as evidence

of a species of ancestor worship practised by the later inhabitants of Mochlos at the graves of their forebears. If such were the case, which is unlikely, the feeling of veneration did not prevent the appropriation of any objects of value which were uncovered in clearing the upper parts of these large burial chambers. It seems clear that robbery was not the sole motive of the curious burrowing operations carried on by the people of the M. M. I and M. M. III periods in the surface soil of these tombs, because the bulk of the rich interment was so often left untouched. Also, mere robbers do not leave their own fine weapons, vases and seal stones behind them on the scene of their operations. In the case of Tomb VI, the upper part of the chamber contained M. M. III objects together with the remains of many bodies (see p. 50). It is true that these Middle Minoan deposits were all found in the surface soil, and we know that even the bones of the Early Minoan period, which were too deeply buried to suffer much from the infiltration of water, had been reduced to powder. Bones near the surface constantly soaked by the winter rains would have suffered even more, so that the fact that few human remains were associated with these objects does not preclude the possibility that we really have to do with Middle Minoan burials from which nearly all human relics have disappeared. The confused condition of these M. M. deposits might in some cases have been due to later plunderers, in others merely to the action of time and the movement of the surface soil which, on these steep slopes in Crete, undergoes great changes during the heavy winter rains.

The following objects found in this tomb were all of Middle Minoan date with the exception of Nos. III, *e*, *f*, *g* and *j*.

III. *a* (FIG. 46 AND PL. IX). Small bowl and cover of curious grey breccia with spots or veins of pink stone edged with white (height 3 cm., diameter 6.8 cm.). This stone recalls a curious style of painted pottery which sometimes occurs in the M. M. I period, on which an irregular dark design on a buff ground is edged with a fine line of white paint. It may be that this style was derived from breccia vases like No. III, *a*, since there is no doubt that, in certain cases, Minoan vases were painted to imitate stone.[1]

III. *b* (FIG. 46). Bowl of similar shape of grey and white marble with breccia cover (height 3.5 cm., diameter 6.5 cm.). These bowls are of a type which seems never to occur before the M. M. I period

[1] *J. H. S.*, Vol. XXVI, 1906, Pl. VIII.

and in every case where such bowls have been found at Mochlos the objects associated with them belonged to the Middle or Late Minoan periods.

III. *c* (NO ILLUSTRATION). Large bowl of common black steatite badly rotted (type of Fig. 18, No. IV, 1). This is a shape characteristic of the M. M. period.

III. *d* (NO ILLUSTRATION). Straight-sided cup of the same material as No. III, *c* (height 5 cm., diameter 5.8 cm.). This type is shown in Figure 32, No. XX, 3.

III. *e, f* (FIG. 36). Two gold sprays of two leaves each like those from Tomb II (Fig. 10, No. II, 24).

III. *g* (FIG. 36). Object of gold like a drawing pin or thumb tack (diameter 1.6 cm.).

III. *h* (FIG. 36). Silver ring, badly corroded, with cross-shaped design on the bezel (diameter of bezel 1 cm., diameter of hoop 1.4 cm.). This ring was found near the surface and cannot be dated.

III. *i* (FIGS. 14, 36). Signet seal of chalcedony of M. M. III date (height 1.5 cm., diameter of field 1.3 cm.).

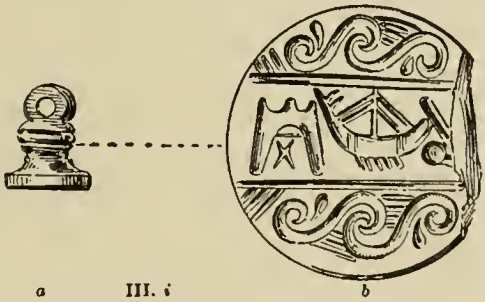


FIGURE 14. SCALE 1 : 1 AND 3 : 1

III. *j* (FIG. 36). Ring of thin gold with horizontal tooling (diameter 1.6 cm., width of band 7 mm.). This ring, to judge by the thinness of the metal, must have served as a covering to a core of perishable material over which the edges of the metal were folded back.

III. *k* (NO ILLUSTRATION). Six small beads of red carnelian.

III. *l* (NO ILLUSTRATION). Large bronze ring badly corroded, part of bezel broken away (diameter of hoop 1.8 cm.).

III. *m* (NO ILLUSTRATION). Jug in coarse red clay, unpainted, bearing a sign  incised on the shoulder (height 29.5 cm., diameter 17.7 cm.). This vase is of M. M. I shape. The sign is probably the owner's mark. A similar sign occurs at Phylakopi.[1]

[1] *Phylakopi*, p. 179, B, No. 12.

III. *n* (NO ILLUSTRATION). Bridge-spouted bowl of M. M. I polychrome ware, badly rotted, with narrow horizontal bands of red and white paint between rows of alternate red and white triangles, one side of each of which has been extended into a sort of stem (height 8 cm., diameter 9.3 cm.).

III. *o* (FIG. 45). Long, slender, bronze knife blade (length 22.5 cm.). This doubtless dates from the M. M. period, for it was found lying close to the rock floor of the tomb with M. M. I potsherds. It closely resembles Nos. XI, 22, and XIII, *m*, of Figure 45, which appear to be of M. M. date (see p. 61).

About fifty yards farther along the ledge on which lie the three tombs just described, the cliff juts inward, forming a roughly triangular space. Against the northern cliff and facing southwest towards Tombs I, II and III lie three more large chamber tombs side by side as shown in Figure 15. These chambers faced a small roughly paved court which, commencing a little to the north of Tomb III, extended to the entrances of the second group. This paved court evidently destroyed some earlier graves, inasmuch as remains of gold ornaments and sherds of E. M. I ware were found beneath the pavement. This court was still partially clear in the M. M. I and III periods; a large jar of the latter period was found standing close to the eastern boundary wall against the cliff, and many sherds of both periods were scattered about in the soil at the south end near Tomb III.

Tomb V lies on the very edge of the cliffs with a sheer drop of 100 feet to the sea below. Next to it stands No. IV with well-built door jambs (Fig. 17). No. VI has no entrance upon the court, but was reached through No. IV, a most curious arrangement which will be discussed later. All three tombs are well shown in Figure 16, which is taken looking north. No. V is seen on the extreme left, No. IV in the centre, while No. VI lies behind the heavy wall on the right, directly under the overhanging cliff. These three tombs were built in the E. M. II period over the still earlier deposit of E. M. I pottery which is described in connection with the ware of that period on p. 92. By the beginning of the M. M. III period they had become partially, if not entirely, filled with earth. At that date No. IV was almost entirely cleared. When excavated it contained a number of objects belonging to the E. M. III and M. M. III periods. The other two tombs, Nos. V and VI, seem to have remained intact,

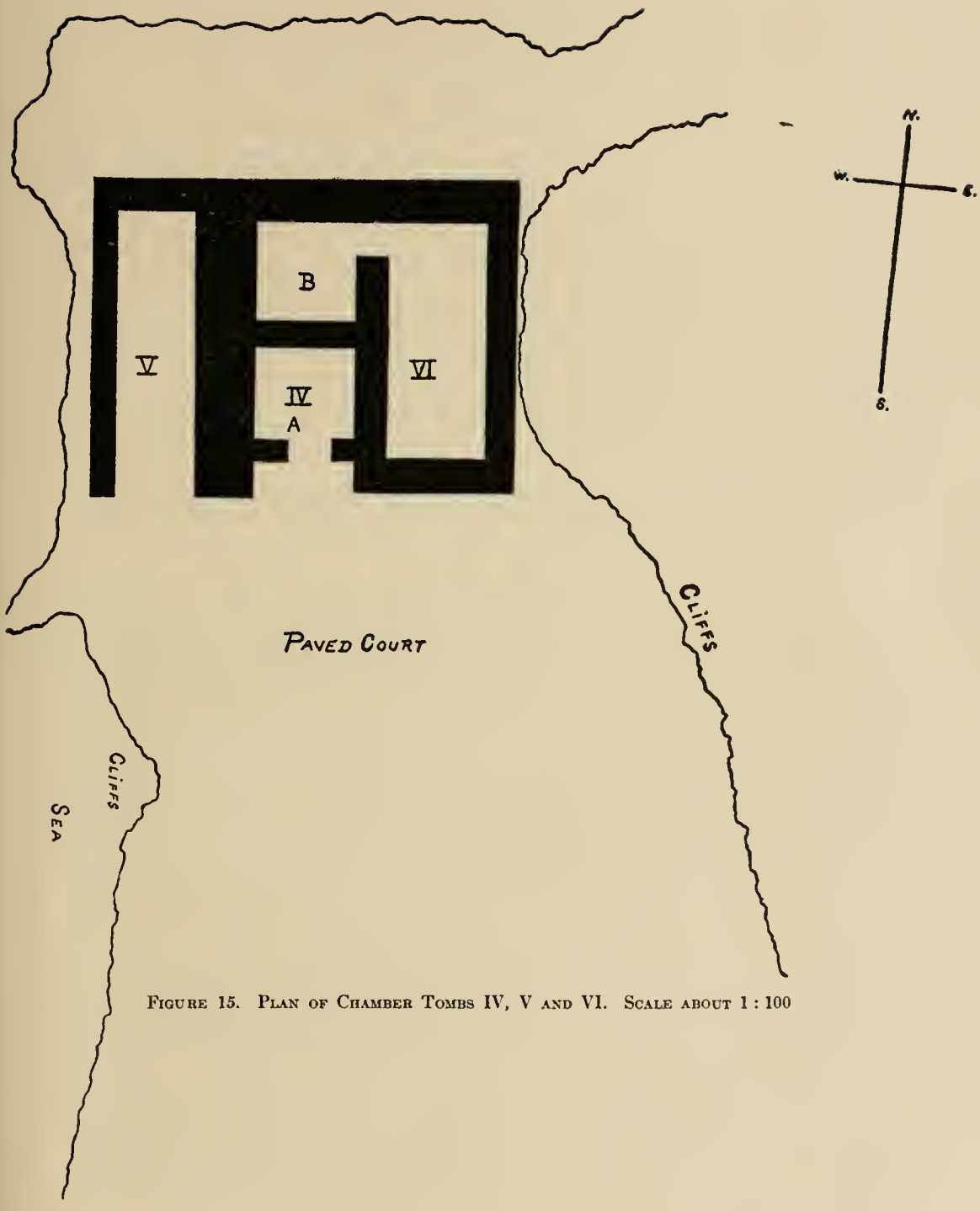


FIGURE 15. PLAN OF CHAMBER TOMBS IV, V AND VI. SCALE ABOUT 1 : 100

although the former did not yield any such mass of objects as were found in No. VI. As Nos. IV and VI seem to belong together, it is best to deal first with Tomb V.

Tomb V

This is a very narrow chamber 5 m. long by 1.40 m. in width. The outer wall on the left lies on the very edge of the precipice (Fig. 16). The great door-slab, which had slipped from its original position, was lying part way down the slope caught between two boulders, so that the south end of the tomb was open. The rock floor slopes sharply up from the entrance to the north end, where the depth of soil was very slight. At the south or entrance end, where the soil was deeper, the builders of this group of tombs had left a large deposit of E. M. I pottery some 20 cm. thick underlying their walls. The red soil of this deposit made it quite distinct from the white clay filling of the tomb chamber so that no confusion was possible between the two deposits. A great many baskets of sherds were gathered together from this early layer, a full description of which is given on page 92.

Tomb V showed no signs of ever having been disturbed in later periods and, although it did not contain any great number of objects, they were all of good quality. Judging from the pottery it would appear that the first burial dated from the E. M. II, the latest from the E. M. III period. No Middle Minoan objects occurred even in the surface soil.

The bones, few of which were preserved, were found with the vases scattered about the chamber floor instead of lying together in one heap as was usually the case in the other tombs. One small stone vase contained a long strip of gold foil crumpled up and crammed into it with such force that it formed almost a solid mass at the bottom. A number of gold scraps were lying about in the earth filling; apparently in moving the bones from the temporary grave to the ossuary, little care was taken to prevent the destruction of the objects associated with the burials. This tomb, like Nos. IV and VI, is built with walls partly formed of upright slabs and partly of horizontally laid courses similar to the house walls of the period. The objects from this tomb are as follows:

V. *a* (FIGS. 18, 19). Large jug of E. M. III ware. The white design on a dark ground is one of the first examples of the spiral, a design that does not usually appear until the L. M. I period (height 19.5 cm., diameter 16 cm.).

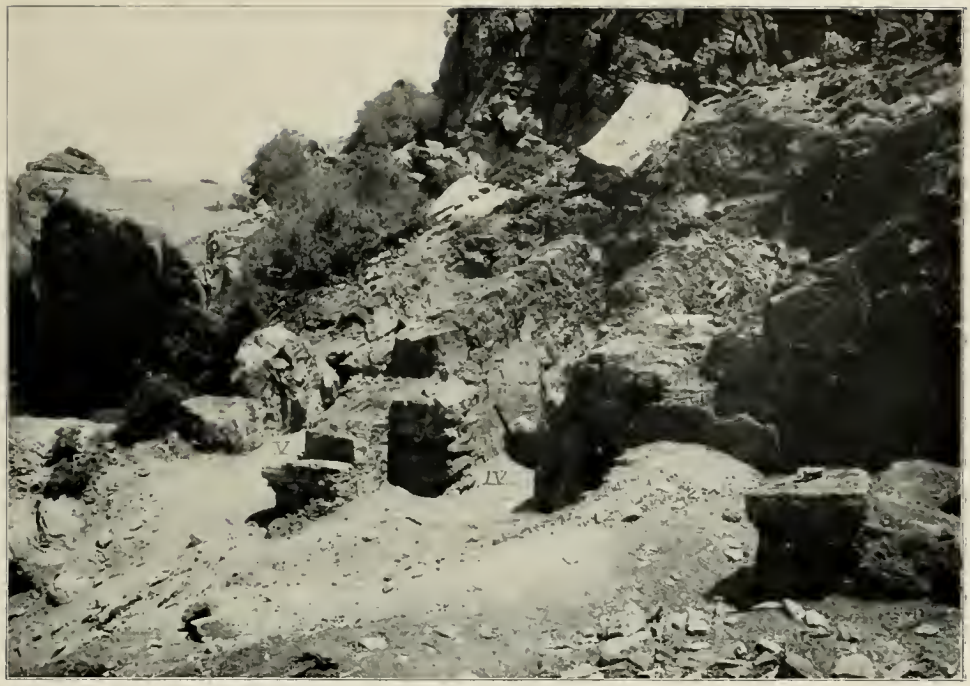


Figure 16. Chamber Tombs Nos. IV, V and VI

Figure 17. Chamber Tomb No. IV

V. *b* (FIG. 18). Vase of brownish clay highly burnished (height 11.5 cm., diameter 10.2 cm.). The dotted pattern is evidently the prototype of the painted design on the cup of Figure 19, No. IV, 2. The vase itself is derived from a very primitive model and must belong to the early part of the E. M. II period.

V. *c* (FIG. 18). Small-spouted bowl of alabaster (height 2.2 cm., diameter 4.8 cm.).

V. *d* (FIG. 18). Small bowl of plain green steatite (height 1.3 cm., diameter 4 cm.).

V. *e* (FIG. 18). Small bowl of grey marble with a hook-shaped handle (height 1.6 cm., diameter 5 cm.).

V. *f* (FIG. 18). Little bowl of grey marble, two lip handles (height 1.5 cm., diameter 3.9 cm.).

V. *g* (FIG. 18). Pot of mottled green steatite (height 4.5 cm., diameter 3.4 cm.).

V. *h* (FIG. 18). Small cup of translucent green steatite (height 2.5 cm., diameter 3.4 cm.).

V. *i* (FIG. 18 AND PL. IV). Large side-spouted jug of alabaster. The shape and irregularities in the workmanship point to an early period. It is probably contemporary with the burnished vase No. V, *b*. The cutting, which is very uneven (though this is hardly noticeable in the illustration), would lead one to assign this vase to the time when the art of stone carving was still in its infancy. The walls of the jug are very thick and the inside is only partly hollowed out, leaving a thick solid base. The handles, both chipped off, were of the early suspension type. This alabaster, which rarely occurs at Mochlos, has a peculiarly brilliant color and vivid veining (height 9.8 cm., diameter 11.4 cm.).

V. *j* (NO ILLUSTRATION). Stone color-table like that shown in Figure 13, No. II, 53 (length 28 cm., height 5.3 cm., width 19.5 cm.).

V. *k* (FIG. 41). Gold ornament consisting of a hollow cap of gold with four pendant leaves. It may have formed the tip to a staff or sceptre, as its shape precludes any idea that it could have been used for personal adornment (diameter of gold cap 2 cm., length of each leaf with stem about 5 cm.).

V. *l* (NO ILLUSTRATION). Long strip of gold foil found crushed inside the small stone pot of Figure 18, No. V, *g* (length 23.8 cm.).

V. *m* (NO ILLUSTRATION). Object of lead resembling a small rodent's skull (length 4.5 cm.).

In addition to these objects many scraps and fragments of gold foil were found but none of them entire.

Tomb IV

This tomb lies just at the right of No. V (Figs. 15, 16, 17), the east wall of which forms the west wall of No. IV. The doorway, which has well-built jambs of flat stones, was closed by a great upright slab which was still in its original position. When this was removed two small chambers were discovered, lying one behind the other, separated by a low partition wall. The first (Fig. 15, No. IV, A) was 2.20 m. deep, the second, B, 1.85 m., which is also the width of the tomb. In the right or east wall of the inner chamber B was a doorway leading into No. VI. At some time, probably in the E. M. III period, this doorway connecting No. IV with No. VI was walled up. This may have been done for various reasons. The chamber may have become filled with bones or the family for which the tomb was built may have died out. Whatever may have been the reason, it is clear that No. VI ceased to be used as a place of burial by the end of the E. M. II period, as it contained no objects of later date, except near the surface. The relation of No. IV and No. VI (Fig. 15) is curious; it is possible that, in the original scheme, No. IV was not intended as a tomb, but rather as a mortuary chapel through which the important burial chamber of No. VI was reached. As there is no means of entering No. VI except by passing through No. IV, the latter can hardly have been intended for burial purposes as long as No. VI was in use. Again, we know that No. VI is of very early date belonging to the beginning of the E. M. II period before the introduction of the mottled ware, whereas the only early burial deposit on the floor of No. IV belonged to the E. M. III period. We may, therefore, assume that No. IV was merely an outer chapel to No. VI in the original E. M. II plan of this tomb group. Later, at the end of this period or at the beginning of the E. M. III age, the connecting doorway was walled up, and a small partition wall was built across No. IV (well shown in Fig. 17), leaving a sort of antechamber, A, next the entrance. At any rate, No. IV began to be used as a tomb chamber in the E. M. III period, since a burial of this date was found in the inner compartment B.

No objects of any sort were found on the floor of the outer chamber A, but close against the partition wall in B lay the burial just

FIGURE 18. SCALE ABOUT 1 : 4

mentioned. The deposit consisted of a few stone vases, a clay cup, and a large number of beads. The date is fixed by the clay cup (Figs. 18 and 19, No. IV, 2), which is an excellent example of the light-on-dark ware of the E. M. III period. These objects lay directly against the inner face of the partition wall and probably represented but a small portion of the original contents of the chamber, inasmuch as parts of other vases in alabaster and grey marble indicated that several had been destroyed, probably in the M. M. III period. It seems clear that the chamber must have been discovered by the M. M. III inhabitants of Mochlos, who partially cleared it for their own use. In the soil near the entrance and a metre above the floor level several unpainted vases and two knife blades of this date were found. This M. M. III deposit formed a thick stratum over almost the entire tomb and as it approached the rear wall its depth increased until the floor of the chamber was reached. At this point, close to the rear wall of the tomb and only 10 cm. above the floor, stood two large unpainted jars and a big bowl of black steatite of characteristic M. M. III types. No bones were found with these objects and the only thing of any artistic value was a small terra-cotta head (Fig. 21). Without doubt when the M. M. intruders placed these vases so near the level of the earlier burial, a part of its contents became exposed to their eyes. The fragments of stone vases show that they were thrown out as valueless, but precious metal must have been carefully collected. The only reason that a few E. M. III objects escaped was the fact that, along the inner face of the partition wall, the spoilers did not clear away the earth to the rock floor, thus leaving a portion of the original deposit undisturbed. Just outside the entrance were many fragments and one broken vase of E. M. II black burnished ware which are doubtless remnants of a deposit placed in No. IV when it served as an antechamber to No. VI and thrown out in the E. M. III period when No. IV was turned into a burial chamber.

It is hard to decide whether these tombs were ever roofed over. No signs of slabs or covering material of any sort were found inside any one of the chambers. If Nos. IV and VI were always left open to the sky, it is difficult to understand the complex arrangement of doorways closed by great slabs. An outer mortuary chapel with no roof, leading to an equally open inner tomb chamber, seems a rather useless construction. The walls of No. IV and No. VI in places are even now 2 to 2.50 m. in height, quite enough to have allowed plenty of standing room inside if they once possessed roofs. No doubt the walls were still higher originally, for it is quite clear that the upper

parts of the walls of the south front have been carried away in the process of denudation, and no doubt the north wall was also reduced a course or two from the same cause. It is not likely that so many gold ornaments and fine stone vases would have been left lying about with the human remains in an open chamber. The tombs were certainly not filled in after each burial, but the bones of different members of the family were placed within as the deaths occurred, probably with intervals of some years between successive interments. Again, the objects show no signs of long exposure to the weather, which they would do had the chambers remained open to the sky. If after each burial a layer of earth had been thrown in, one could understand the possibility of an open tomb. The evidence, however, precludes this idea, inasmuch as the bones lay in more or less solid masses with no layers of earth separating the various interments. The fact that no trace of roofing material came to light inside these chambers is no argument against the existence of roofs, since in the M. M. III period such remains might have been thrown out when the tombs were partially cleared. At the back of No. IV, between the rear wall of the tomb and the cliff behind, were the pieces of several stone vases which belonged to fragmentary vessels found in the tomb itself. These fragments, usually associated with M. M. III potsherds, were nevertheless of early manufacture and represented a part of the original tomb deposit which was thrown out in the M. M. III period. With these fragments were numerous pieces of white plaster, smooth on one side and showing the impress of reeds on the other. These pieces of plaster may have formed part of the roofing of these chamber tombs. The roofs must have collapsed in the interval between the last E. M. III burials and the beginning of the M. M. III epoch. If the tombs had still been intact in the M. M. III period, it is doubtful if any of the original contents would have escaped untouched, since the robbers would have entered by the door and cleared the chambers of every object of value. Luckily the fallen roofs and the earth washed down from the slopes above had filled all the tombs with a deep layer of débris which effectually concealed the greater part of their rich contents. Without doubt the heavy wall of the south front was still clearly visible in the M. M. III period, and this probably led to their being once more brought into use.

Before turning to the objects discovered in this tomb, one more fact must be discussed. Tomb IV as it existed in the E. M. III period had the general arrangement supposed to be common to the primitive house in the Aegean. It consists of a long narrow building

IV. 2

V. *a*

FIGURE 19. SCALE 2 : 3 AND 1 : 2

with a doorway in the centre of one of the narrow ends, leading first to an anteroom with an inner chamber behind. An argument has been put forward, based on a curious circular building found by Dr. Xanthoudides at Chamaizi, that the dwelling houses of the early periods in Crete were derived from a circular model which was gradually transformed into a rectangular one.[1] This theory, however, is unsupported by the evidence yielded by excavations at Vasiliki, Pseira, Mochlos and elsewhere in Eastern Crete. At Vasiliki, where we have the largest and best preserved E. M. II house yet known in Crete, there was no trace of the circular form, and in the underlying foundations, which belonged to houses of still earlier date, only rectangular rooms were brought to light. Moreover, certain deeply buried walls on the town site of Mochlos, dating from so remote an era as the E. M. I period, belonged to rectangular rooms. To this evidence is now added that of the Mochlos tombs. In all probability they give the type of dwelling common to the primitive inhabitants of Eastern Crete; the circular form of building at Chamaizi must have been determined by the nature of its position on a hilltop, where an elliptical house gave a greater floor space with less masonry than would have been possible if a rectangular form had been adopted.[2]

The objects from Tomb IV are as follows:

IV. 1 (FIG. 18). Large bowl of black steatite (height 12.5 cm., diameter 29 cm.). This bowl comes from the M. M. III deposit and is of a shape which never appears before the M. M. I period.

IV. 2 (FIGS. 18, 19). Clay cup of E. M. III light-on-dark geometric ware. The design is very characteristic of the period (height 8.2 cm., diameter 10.9 cm.). From the evidence of vases found at Pseira and on the Mochlos town site, the shape of this cup would tend to place it toward the end of the E. M. III period, although the design looks earlier.

IV. 3 (FIG. 18). Small vase of translucent green steatite which, in shape, recalls the clay "egg-cups" of the E. M. II mottled ware (height 5 cm., diameter 3 cm.).

IV. 4 (FIG. 18). Large shallow bowl of grey and white marble (height 5.7 cm., diameter 21.7 cm.). A few pieces of this bowl were found in the antechamber, but most of the fragments had

[1] Noack, *Ovalhaus und Palast*, pp. 51–70.

[2] The question of the primitive house in the Aegean has been most ably discussed by Dr. Duncan Mackenzie (*B. S. A.*, Vol. XIV, p. 343), who makes it clear that all evidence points, at present, to a rectangular form for the houses of primitive Crete and the Aegean in general.

been thrown out with the soil when the tomb was partially cleared in the M. M. III period and were found lying between its north wall and the cliff behind.

IV. 5 (FIG. 18). Small bowl of similar shape and material (height 4 cm., diameter 8.5 cm.).

IV. 6 (FIG. 18 AND PL. VII). Bowl of mottled green steatite with pierced suspension handles. This is the largest example of this rare stone found at Mochlos (height 5.4 cm., diameter 8 cm.). The walls of this vase are very thin and the whole vessel is beautifully cut and polished. It is of an early shape derived from E. M. II bowls of black burnished ware like that shown in Figure 50, No. 87.

IV. 7 (FIG. 20). Chalcedony pigeon vertically pierced through the body for use as a pendant (height 2 cm.). Two similar pigeons were found in graves at Siphnos, one of which contained the silver diadem mentioned in connection with Tomb II (see p. 27).[1]

IV. 8 (FIG. 20). Small boss of gold, two holes on either side for attachment (diameter 1.2 cm.).

IV. 9 (FIG. 20). Rosette of shell, without doubt a pin head like those of the gold pins from Tomb XIX in Figure 42, No. XIX, 11 (diameter 2.2 cm.).

IV. 10 (FIG. 20). Top of the spiral core of a conch shell cut out to form the bezel of a ring (diameter 1.4 cm.). Such shell objects often occur in Minoan deposits and probably had some special significance, perhaps as amulets.

IV. 11 (FIG. 20). Necklace of gold, crystal and irregular stone beads. The gold beads, five in number, are cylindrical and of small size. The six rock crystal beads are exactly like some from Tomb VI (Fig. 25, No. VI, 34), and may have been dropped in No. IV at the time when the E. M. II interments were carried into Tomb VI through this chamber. The irregular beads of steatite and breccia are quite unlike any others from the Mochlos cemetery and certainly have a very early look. In the middle of the right half of this necklace is a grooved bead of porcelain which is of much later date, probably M. M. III.

IV. 12 (FIG. 20). Shell matrix like No. IV, 10, but smaller (diameter 1 cm.).

[1] *Ἐφ. Ἀρχ.*, 1899, Pl. 10, Nos. 27, 28; *ibid.*, 1898, Pl. 8, Nos. 16, 17, 23.

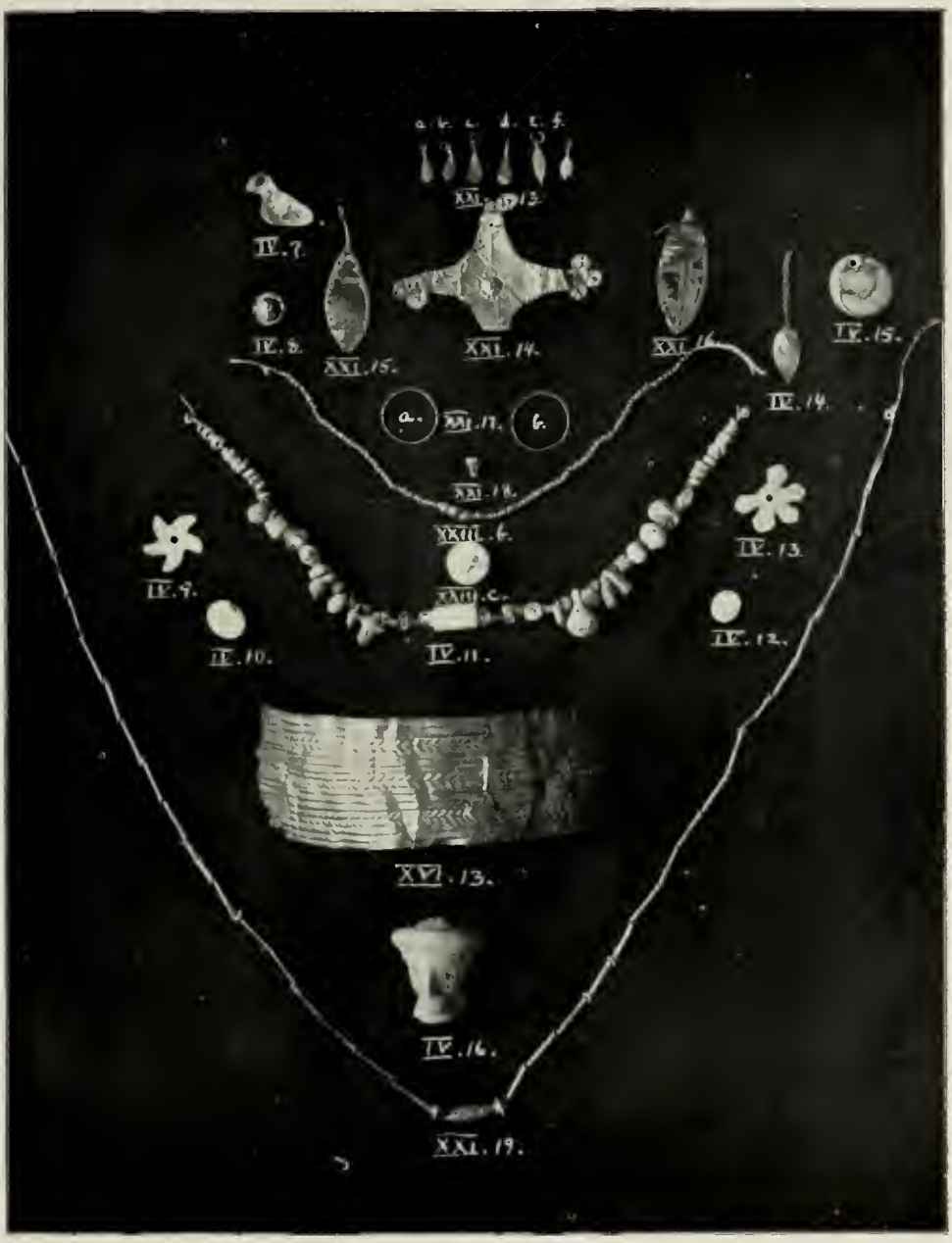


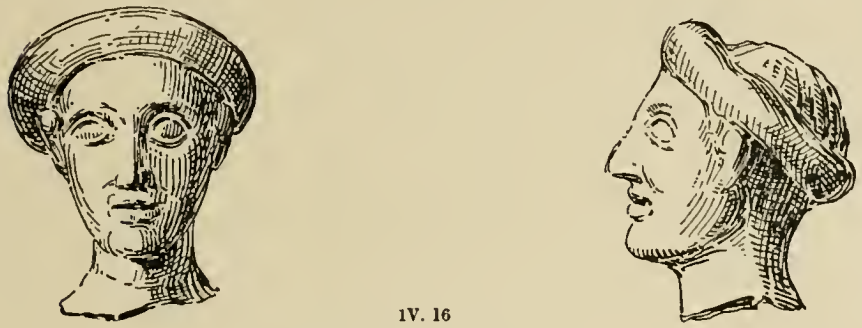
Figure 20. Scale about 2 : 5

IV. 13 (FIG. 20). Shell rosette similar to No. IV, 9 (diameter 2.5 cm.).

IV. 14 (FIG. 20). Gold chain with leaf pendant (length 5 cm.). This chain is like those from Tomb II (Fig. 10, Nos. II, 30, 35, 36).

IV. 15 (FIG. 20). Round pebble pierced for use as a pendant (diameter 2.2 cm.).

IV. 16 (FIGS. 20, 21). Small terra-cotta head which has been mentioned as belonging to the M. M. III period. The workmanship is excellent and may well be compared to that of the Snake Goddess and the Votary from Knossos,[1] with which it is roughly contemporary. It would appear to be a male head were it not covered with a white wash, traces of which still remain. The



IV. 16

FIGURE 21. SCALE 1 : 1

Minoans are supposed always to have followed the Egyptian convention of coloring men red and women white, in which case we must consider this head as that of a woman. The hair, which appears to be in thick locks on the top of the head, is gathered inside a tight roll or turban similar to that worn by the Votary from the Knossos shrine and by the men on the Hagia Triada vase.[2] The features are very clearly marked, the nose slightly aquiline (height from break in neck to crown of head 4 cm.). The head was found with the two following knife blades.

IV. 17 (FIG. 45). Bronze knife blade. This shape closely resembles that of certain short M. M. I knife blades (length 14.3 cm.).

IV. 18 (FIG. 45). Curious bronze knife blade of almost oval shape (length 15.5 cm.). This blade was found together with the preced-

[1] *B. S. A.*, Vol. IX, p. 75, Fig. 54 *a* & *b*; *ibid.*, p. 77, Fig. 56, *a* & *b*.

[2] *Mon. Ant.*, Vol. XIII, Plates I, II and III.

ing a metre above the floor of the antechamber. It shows no trace of the early triangular shape which can still be observed in the case of No. IV, 17, and without doubt belongs to the M. M. III period.

IV. 19, 20 (NO ILLUSTRATION). Two large unpainted jars of M. M. III date (height 38.5 cm., diameter 30 cm.).

IV. 21 (NO ILLUSTRATION). Large M. M. III clay bowl shaped like a modern flower pot. It is unpainted (height 11 cm., diameter 20 cm.).

Tomb VI

This tomb seems to have been the oldest in the cemetery of Mochlos and also to have suffered least at the hands of later intruders. Although the upper part of the chamber contained some remains of the M. M. III age, the people of that period never cut deep enough to disturb the bulk of the original interments. In fact the fragments of M. M. III pottery which lay deepest were still nearly 50 cm. above the rock floor of the tomb.

The chamber measures 3.90 m. in length and 1.80 m. in width. The depth from the top of the wall to the deepest part of the burial deposit is 3.85 m. The only doorway, as has been said (p. 40), led into Tomb IV (Fig. 15).

The objects were all found, mixed with a confused mass of bones, lying on the uneven rock floor. At the north end, as in Tomb II, a deep cavity was revealed, containing a quantity of beads, vases and small objects of various sorts. The pottery on the floor of the tomb and from the 50 cm. of soil immediately above it is all of E. M. II date and belongs to the first part of that period, when the grey subneolithic clays and the buff polished wares which preceded the mottled fabrics were still in use.

The east wall, which was built against the cliff, had fallen forward into the chamber at an early date, covering the burial deposit with a thick layer of fallen stones. In the M. M. period this fallen wall was partly rebuilt. In laying the new foundation the builders did not go deep enough to find the top of the original wall but placed the new one somewhat farther forward, thus making the tomb chamber much narrower. It is certain that we owe the preservation of the original tomb deposit to this fallen wall since it baffled the people of the M. M. period, who never attempted to carry their curious burrowing operations through this layer of fallen débris. This tomb is the only one of the six in which the M. M.

level contained human remains in any marked quantity. All the upper soil of the chamber was filled with the badly disintegrated bones of many bodies, and it is evident that the people of the M. M. period rebuilt the fallen east wall of the chamber with the express purpose of using the enclosure as a place of burial. Oddly enough no objects of any value came to light in this stratum. The question of date was settled by a large number of potsherds of poor quality belonging to the M. M. III and L. M. I periods. Unlike Tombs I, II, III and IV, this tomb contained in the M. M. stratum only one whole vase and no knife blades or seal stones, which would tend to show that the remains were those of people of poor condition.

Luckily the early deposit is of a very different character, and its richness is a strong indication that we have here the burial place of a wealthy and powerful family, a fact that is borne out, as has been said, by the architectural features of this tomb, which faced on a paved court and was entered through a sort of mortuary chapel.

The vases from this tomb are twenty-two in number, six of which are of clay, one of silver, one of porcelain, and the rest of stone.

VI. 1 (FIG. 22 AND PL. V). Side-spouted jug of grey and white marble, a shape characteristic of the E. M. II period (height 6 cm., diameter 7.5 cm.).

VI. 2 (FIG. 22 AND PL. V). Large alabaster jug. This is the finest and largest piece of alabaster from the entire cemetery (height 12 cm., diameter 10.5 cm.). The coloring is very brilliant, shading from orange to pink and white. The alabaster is quite unlike that of Egypt and seems to be a local variety peculiar to Crete; nowhere else have I seen a material of such marked veining and varied coloring.

VI. 3 (FIG. 22 AND PL. VI). Vessel of grey and white marble resembling a modern sauce-boat (height 6 cm., length 18 cm.). This shape is unusual; the only other example is represented by part of the side of a large specimen found in this same tomb. Three boat-shaped clay dishes of the E. M. II and E. M. III periods found at Vasiliki appear to be modifications of this type of vessel.[1] A similar one also of clay was found at Syros,[2] and another very early example is from Gournia.[3]

VI. 4 (FIG. 22). Jug and cover of breccia, poorly worked (height 6 cm., diameter 6.5 cm.).

[1] *Trans.*, Vol. II, Part 2, p. 122, Fig. 5. [2] *Ἐφ. Ἀρχ.*, 1899, Pl. 9, No. 8.
[3] *Gournia*, p. 56, Fig. 37, No. 1.

VI. 5 (FIG. 22 AND PL. VI). Small bowl of grey and white marble with four rim handles (height 1 cm., diameter 2.8 cm.).

VI. 6 (FIGS. 22, 23). Round-bodied cup of buff clay with a design of festoons in dark paint around the rim (height 7.5 cm., diameter 10.8 cm.). This shape, which first appears in the early part of the E. M. II period is one that lives on into the E. M. III period.

VI. 7 (FIG. 22 AND PL. VI). Small bowl of grey and white marble (height 1.7 cm., diameter 2.9 cm.).

VI. 8 (FIG. 22). Small silver cup with rows of beading around the lower half (height 3.2 cm., diameter 5.6 cm.). In shape this cup is the metal prototype of the E. M. III cups from Vasiliki, Pseira and other early sites near the Isthmus of Hierapetra.[1]

VI. 9 (FIG. 22 AND PL. V). Little pot of opaque green steatite (height 3.6 cm., diameter 4 cm.)

VI. 10 (FIG. 22 AND PL. VI). Low bowl of green steatite (height 3.5 cm., diameter 10.5 cm.).

VI. 11 (FIGS. 22, 23). Goblet of very fine grey clay highly polished (height 14.8 cm., diameter 12.5 cm.). This grey clay is peculiar to the first part of the E. M. II period. The shape is derived from an E. M. I type and may go back still earlier; the spout is a variant from the usual unspouted type.

VI. 12 (FIG. 22 AND PL. VI). Small bowl in grey and white marble with rim spout (height 1.3 cm., diameter 3.8 cm.).

VI. 13 (FIG. 22 AND PL. V). Grey and white marble vase on foot (height 5.3 cm., diameter 3 cm.).

VI. 14 (FIG. 22 AND PL. VI). Jug and cover of grey and white marble (height 4.5 cm., diameter 6.3 cm.).

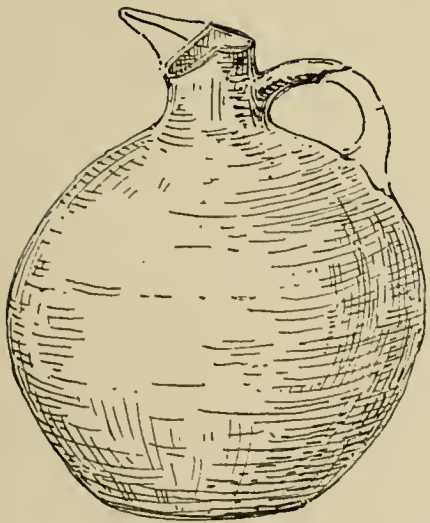
VI. 15 (FIGS. 22, 23). Globular jug of polished buff clay (height 12.2 cm., diameter 11.1 cm.). This shape is probably derived from gourds, which filled the place of clay vessels in the earliest periods. Similar jugs have occurred in the Cyclades.[2]

VI. 16 (FIG. 22 AND PL. VII). Bowl of grey and white marble (height 4.5 cm., diameter 11 cm.). The veining of this material varies greatly in the different examples (see Fig. 7, Nos. II, *f*, *g*.)

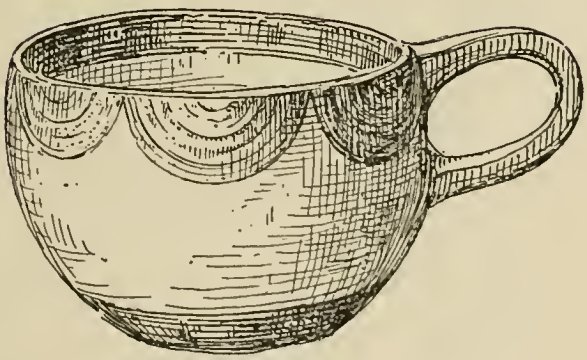
[1] *Trans.*, Vol. II, Part 2, p. 121, Fig. 4. [2] Ἐφ. Ἀρχ., 1898, Pl. 9, No. 26.

FIGURE 22. SCALE ABOUT 1 : 4

VI. 11



VI. 15



VI. 6

FIGURE 23. SCALE 1 : 2

VI. 17 (FIG. 22 AND PL. VII). Bowl of grey and white marble with rim spout and one small handle at right angle to it (height 7 cm., diameter 12 cm.). This is a shape which becomes very common in the clay vases of the E. M. III period and no doubt existed at a very early date.[1] It must be noticed how carefully the stone cutter chose a shape to suit the piece of stone with which he had to work, or vice versa. This is especially marked in vases such as this one, also in Nos. VI, 1, 2 and 3, in which the natural veining of the stone is carefully employed in such a way as to accentuate the form of the vase itself. In this vase, No. 17, the dark band around the rim is as even as in a painted vessel.

VI. 18 (FIG. 22). Jug of grey and white marble, with handle at right angle to spout (height 6.4 cm., diameter 6 cm.).

VI. 19 (NO ILLUSTRATION). Jug like No. 15 but badly rotted (height 15.5 cm., diameter 13.2 cm.).

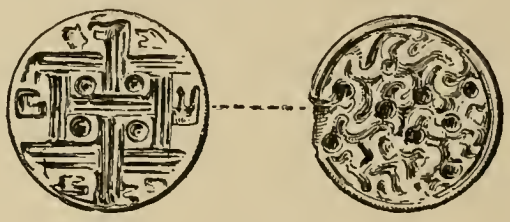


FIGURE 24. SCALE 1 : 1

VI. 20 (NO ILLUSTRATION). Similar jug, not so round bodied, dark paint on spout and handle (height 12.3 cm., diameter 9.4 cm.).

VI. 21 (FIG. 49, No. 70). Small buff M. M. I jug found near surface; dark design in vertical panels, much worn (height 7.8 cm., diameter 6.6 cm.).

VI. 22 (NO ILLUSTRATION). Porcelain bowl so badly rotted that it was impossible to preserve it.

The small objects from this tomb are as follows:

VI. 23 (FIG. 25). Tiny bronze lion (length 2.3 cm.).

VI. 24 (FIG. 25). Pendant from gold chain like chain and pendant from Tomb II, Figure 11, No. II, 36 (length 1.3 cm.).

VI. 25 *a*, *b* (FIG. 25). Two tiny ball pendants of silver possibly from earrings (length 1.3 cm.).

[1] *Trans.*, Vol. II, Part 2, p. 123, Fig. 6.

Figure 25. Scale about 2 : 5

VI. 26 (FIGS. 24, 25). Large ivory cylinder with complex designs on either end. This seal is fully described on page 108 (length 1.8 cm., diameter of field 2.5 to 2.6 cm.).

VI. 27 (FIG. 25). Short necklace of gold and rock crystal beads. The three large gold beads in the centre of the string must have possessed a core of perishable material as the metal is too thin to have kept its shape without support. The tubular gold beads are identical with those found in Tomb IV, Figure 20, No. IV, 11 (length 15 cm.).

VI. 28 (FIG. 25). Animal mask of gold leaf, probably meant to cover a lion's head of wood or porcelain (width 3 cm.).

VI. 29 (FIG. 25). Small copper cutter with bit of ivory hilt still adhering to the rivets (length 3.4 cm.).

VI. 30 *a*, *b* (FIG. 25). Part of a curious ivory object which had once been attached to some other substance by means of numerous small rivets (width of *a*, 3 cm., length 3 cm.; width of *b*, 2.5 cm., length 2.5 cm.).

VI. 31 *a*, *b* (FIG. 25). Two very fine double-link gold chains with leaf pendants (length of *a*, 11.5 cm.; length of *b*, 10.5 cm.). These two chains are among the most delicate pieces of metal work found at Mochlos.

VI. 32 (FIG. 25). Triangular piece of thin gold foil (length 6 cm., width 2 cm.).

VI. 33, 34 (FIG. 25). Two long necklaces of rock crystal beads, each with a large central pebble of the same material (No. 33, length 44 cm.; No. 34, length 50 cm.).

VI. 35 (FIG. 25). Still longer necklace of very small beads of stone, porcelain and shell (length 60 cm.). These beads bear a close resemblance to the common porcelain beads of Egypt. The appearance of porcelain both for beads and vases in this tomb is very interesting as it shows that porcelain was already known to the Minoans as early as the E. M. II period.

VI. 36 (NO ILLUSTRATION). Large disk of thin gold with dotted border, badly torn and crumpled (diameter about 15 cm.). This disk was found between the M. M. III east wall of No. VI and the cliff, together with the fragments of a couple of fine stone vases. It would appear to have been thrown out with the soil when the upper part of No. VI was cleared in the M. M. III period. If of late date,

it might have served as a central boss on a shield, but so far there is no evidence to show that shields were in use in these early periods. From the style of the work and the border of dots it would seem to belong, with the rest of the contents of Tomb VI, to the E. M. II epoch.

This tomb, unlike the other large chamber tombs, contained no weapons in either the E. M. II or M. M. III levels; the only remaining objects were shapeless fragments or scraps of gold foil.

THE SMALLER TOMBS

These tombs, where they possess built walls, are always of about the same size, viz. 1 m. wide by 2 m. long. Therefore I have given no dimensions in describing them except in cases which are marked exceptions to this rule.

Tomb VII

Among the large masses of fallen rock lying a little below and to the south of Tomb II, a rock-shelter was discovered. A fissure running between two large boulders had been walled in at the southern end, and on clearing away the earth a few bones and the vases described below were brought to light. There is little clue to the date of this burial, but the presence of a bowl in black steatite probably indicates the end of the E. M. III or the beginning of the M. M. I epoch, inasmuch as black steatite for large vessels rarely occurs before these periods.

VII. *a* (FIG. 46). Cup and cover of white alabaster (height 7.2 cm., diameter 9.5 cm.). Vases of this material were very rare; the other two examples from Mochlos appear, from their shape, to be of Cycladic origin (Fig. 47, No. 12, and Pl. III, No. XXI, 10). This cup and cover, as regards shape, might as well be Cretan as Cycladic.

VII. *b* (NO ILLUSTRATION). Deep bowl of black steatite with solid rim handles. The stone was badly rotted and the greater part crumbled away as soon as it was uncovered (type of Fig. 18, No. IV, 1).

VII. *c* (FIG. 26). Bronze bowl with horizontal handle on rim (height 8.8 cm., diameter 22 cm.). This bowl has a very early look, although I know of no similar vessel from any other site. Such metal vessels must have been rare in the E. M. III age, but the alabaster cup which was found with it would lead one to assign it to

Figure 26. Scale about 1 : 3

this rather than to the M. M. I period. It is probably safer to regard this interment as belonging to the transitional stage between the E. M. III and M. M. I periods. Unfortunately no pottery, the only sure means of determining the date, was found in this grave.

VII. *d* (NO ILLUSTRATION). Small amethyst bead.

Tomb VIII

This burial was placed in a natural hole in the rocks and, as it contained a great many bones with only four vases, probably belonged to people of poor condition.

VIII. *a* (FIG. 46). Small bowl of green steatite with slender spout and rim handle (height 2.3 cm., diameter 6.8 cm.).

VIII. *b* (FIG. 50, No. 85). "Egg-cup" of black ware with slight rim spout (height 9.4 cm., diameter 9.2 cm.).

VIII. *c* (NO ILLUSTRATION). Similar "egg-cup" covered with black paint, band of white around the rim. This is interesting as it shows that the "egg-cup" of the E. M. II lived on into the E. M. III period, to which this example belongs (height 8.2 cm., diameter 8.7 cm.).

VIII. *d* (NO ILLUSTRATION). Side-spouted jug of coarse red clay, unburnished, with two horizontal side handles and a small pinched out handle opposite the spout (height 12 cm., diameter 15.3 cm.). This jug originally stood on three small feet which have been broken away. In type it resembles No. 67 of Figure 49.

VIII. *e* (NO ILLUSTRATION). E. M. II side-spouted jug in coarse brown ware, type of Figure 48, No. 43 (height 14.9 cm., diameter 15.2 cm.).

Tomb IX

This is a slab-lined tomb which contained nothing but some M. M. I and M. M. III potsherds.

Tomb X

This is another slab-lined tomb lying beside No. IX. It contained the much corroded remains of two small bronze cups and four seal stones which certainly date from the M. M. or even the L. M. I period. Bronze vessels seem usually to indicate either one

or the other of these two periods, for they seldom appear before the M. M. III age, although the bronze bowl from Tomb VII is an exception to this rule. These specimens were so corroded that it was impossible to ascertain even their dimensions. Both these tombs appear to have been plundered in the M. M. period, inasmuch as their type of construction is of much earlier date (E. M. II or III) than any objects which they contained.

X. *a* (FIG. 27). Three-sided seal of green steatite of M. M. I date (length 1.2 cm.).

X. *b* (FIG. 27). Signet seal of chalcedony representing a demon-like creature (diameter of field 1 cm.). This seal is probably of M. M. III date.

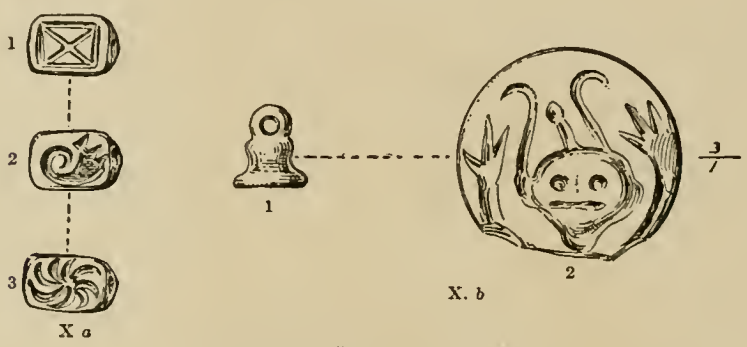


FIGURE 27. SCALE 1 : 1 AND 3 : 1

X. *c* (NO ILLUSTRATION). Lentoid seal of black steatite cut with a design of conventional double axe (diameter of field 2 cm.).

X. *d* (NO ILLUSTRATION). Lentoid seal of black steatite engraved with design of two insects resembling dragon-flies (diameter of field 1.3 cm.). These two seals are probably of L. M. I date.

Tomb XI

This was the only M. M. I tomb which yielded objects of any importance. It is an enclosure 2 m. square with low walls built of small stones. Apparently there was no doorway, but at one point the wall had given way owing to pressure from the soil above. The most noticeable fact which differentiates this M. M. I tomb from those of the E. M. II and E. M. III periods was the great number of black steatite vases and the paucity of early vessels of brilliantly colored stones. Again, the absence of gold ornaments

Figure 28. Scale about 2 : 7

of any sort distinguishes these M. M. tombs from those of the E. M. period, which almost always contained a certain amount of this metal. In No. XI several earlier objects were found which seem to belong to the E. M. II period. It seems clear, therefore, that we have here an early tomb opened and used again in the M. M. I period. Thus the few vases of marble and alabaster, together with two clay vessels of the E. M. II period, would be referable to a burial of that date, whereas the black steatite and polychrome vases belong to the M. M. I interment. As these M. M. I objects lay together along the east side of the tomb and those of the E. M. II period in a heap in the northwest corner, it was not difficult to distinguish between the two interments.

The objects from this tomb are as follows (the first nine vases belong to the E. M. burial):

XI. 1 (FIG. 28). Small bowl of grey and white marble, with a rim spout and three rim handles (height 2 cm., diameter 5 cm.).

XI. 2 (FIG. 28). Small bowl of grey and white marble (height 3.5 cm., diameter 5 cm.).

XI. 3 (FIG. 28). Small bowl of grey and white marble (height 1.5 cm., diameter 4 cm.).

XI. 4 (FIG. 28). Small cup of translucent green steatite, straight hook handle (height 1.5 cm., diameter 3 cm.).

XI. 5 (FIG. 28). Stone color-table like those from Tombs II and V (height 5 cm., length 31 cm., width 21 cm.).

XI. 6 (FIG. 28). "Fruit-stand" or cover of dark brown ware like those from Tomb I, No. I, *a*, and Tomb XVI, No. 10 (height 7.8 cm., diameter 17.6 cm.).

XI. 7 (FIG. 28). Small cup of translucent green steatite, straight hook handle (height 1.3 cm., diameter 3 cm.).

XI. 8 (FIG. 28). Small pot of green steatite (height 3.4 cm., diameter 4 cm.).

XI. 9 (FIG. 28). Small bowl of green steatite, four rim handles (height 1.3 cm., diameter 2.3 cm.).

XI. 10 (FIG. 28). Small bowl and cover of black steatite (height 2.8 cm., diameter 5.4 cm.).

XI. 11 (FIG. 28). Mug of very fine, highly polished buff clay with narrow bands of dark paint on neck and body (height 7.6 cm.,

diameter 10.7 cm.). This is one of the best examples from the cemetery of Mochlos of the M. M. I polished buff ware which bears so close a resemblance to the earlier class of E. M. II vessels with dark designs on a polished buff ground. It is of distinctly M. M. I shape and cannot possibly be assigned to an earlier period.

XI. 12 (FIG. 28). Small bowl of black steatite with oblique grooving (height 4.2 cm., diameter 8 cm.).

XI. 13 (FIG. 28 AND PL. VIII). Large M. M. I cup with a polychrome triangular design on a black ground (height 7 cm., diameter 14.2 cm.). The prototype of this cup is to be found in E. M. III

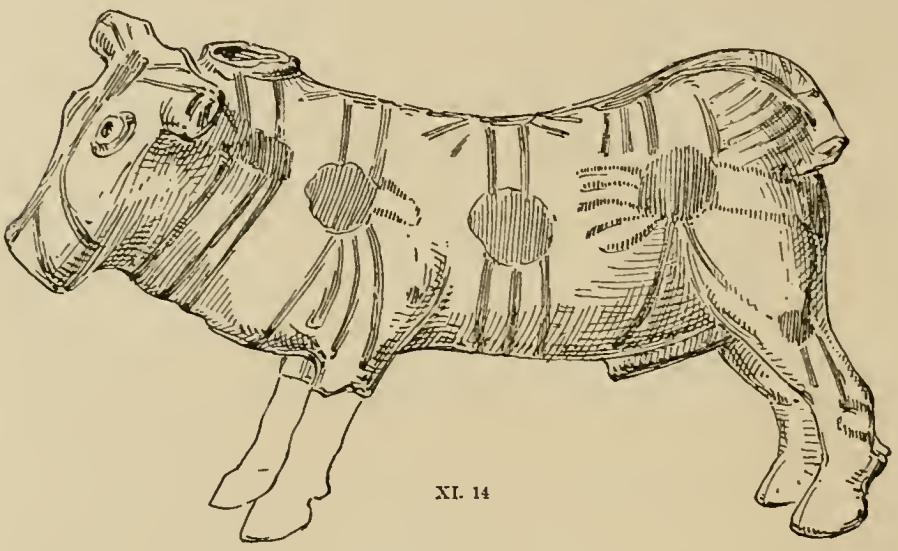


FIGURE 29. SCALE 1 : 2

cups where a similar design of barred triangles is of frequent occurrence.[1]

XI. 14 (FIGS. 28, 29). Bull of polished buff clay with a harness in dark brown paint (height 13 cm., length 22 cm.). The harness seems to have been composed of large circular bits of some material joined together to form a sort of network over the whole body. Similar bulls, dating from the L. M. I period, were found at Pseira and were likewise covered with a somewhat similar harness.[2] Crudely made bulls of this type were found on early sites excavated by Dr. Xanthoudides in the Messara. This bull has the usual hole in the back of the neck and both the eyes and the nose are pierced.

[1] *Gournia*, Pl. A, No. 4. [2] *Anth. Publ.*, Vol. III, No. I, p. 23, Fig. 7 and Pl. IX.

XI. 15 (FIG. 28). Bowl of black steatite (height 4.9 cm., diameter 10.5 cm.).

XI. 16 (FIG. 28 AND PL. VIII). Vase on a slender foot, two horizontal handles (height 10.8 cm., diameter 9.3 cm.). The polychrome design is a complicated one. Under either handle is a wheel-shaped ornament in red and white. The rest of the body is filled by oblique panels containing alternate red and white scroll patterns. This scroll design is often met with on the dark-on-light vases of this period. The wheel-shaped ornament is also typical of the Middle Minoan age.

XI. 17 (FIG. 28). Bowl of black steatite (height 8 cm., diameter 15 cm.).

XI. 18 (NO ILLUSTRATION). M. M. I clay cup covered with black paint, type of No. 55, Figure 49, badly rotted.

XI. 19, 20, 21 (NO ILLUSTRATION). Three large bowls of black steatite, type of Figure 18, No. IV, 1. These were all so badly rotted that they crumbled away as soon as they were uncovered. The presence of three such bowls in this M. M. I interment proves how peculiar this shape is to the Middle Minoan period. It is never met with in undisturbed E. M. deposits.

XI. 22 (FIG. 45). Slender bronze dagger blade with slight midrib (length 23.3 cm.). This type of blade is evidently characteristic of the M. M. I period and is the connecting link between the short triangular daggers of the Early Minoan age and the slender swords of the Late Minoan period.

XI. 23 (NO ILLUSTRATION). Badly rotted "egg-cup" of E. M. II mottled ware.

Tomb XII

This tomb is the only one which contained objects of unquestionably M. M. III date. It is of the cist grave type, with a doorway closed by a thin upright stone slab. In point of construction the tomb is certainly of early date and must have been built originally to contain burials of the E. M. period, although no objects were found which could be assigned to that epoch. In the tomb we find only steatite used for stone vases, no gold ornaments, many porcelain beads and a couple of bronze vessels, all features which are in marked contrast to those observed in connection with burials of the E. M. period.

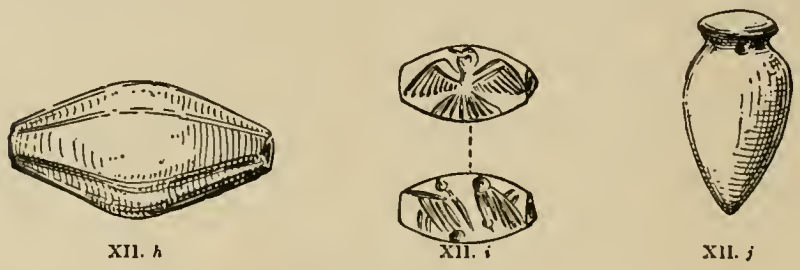
XII. *a* (FIG. 47 AND PL. IX). Hand lamp of dark grey steatite (height 3 cm., diameter 6.5 cm.). This type was found at Pseira in L. M. I houses.[1] Another lamp of this sort was found at Hagia Triada in the Messara.

XII. *b* (NO ILLUSTRATION). Black steatite cup (height 8.5 cm., diameter 9 cm.).

XII. *c* (NO ILLUSTRATION). Black steatite bowl so rotted that it could not be preserved.

XII. *d* (NO ILLUSTRATION). Green steatite whorl (diameter 2.5 cm.).

XII. *e* (FIG. 26). Bronze bowl badly corroded (height 4 cm., diameter 18.5 cm.).



XII. *h* XII. *i* XII. *j*

FIGURE 30. SCALE 1 : 1

XII. *f* (FIG. 31). Bronze cup of the Vaphio type (height 6.5 cm., diameter 11.5 cm.). This cup is a very good specimen of M. M. III metal work. The design is one which occurs frequently in the decorative art of both the M. M. III and L. M. I periods.

XII. *g* (NO ILLUSTRATION). Bronze ring with engraved bezel, but so badly corroded that the design is completely obliterated (diameter of hoop 1.4 cm.).

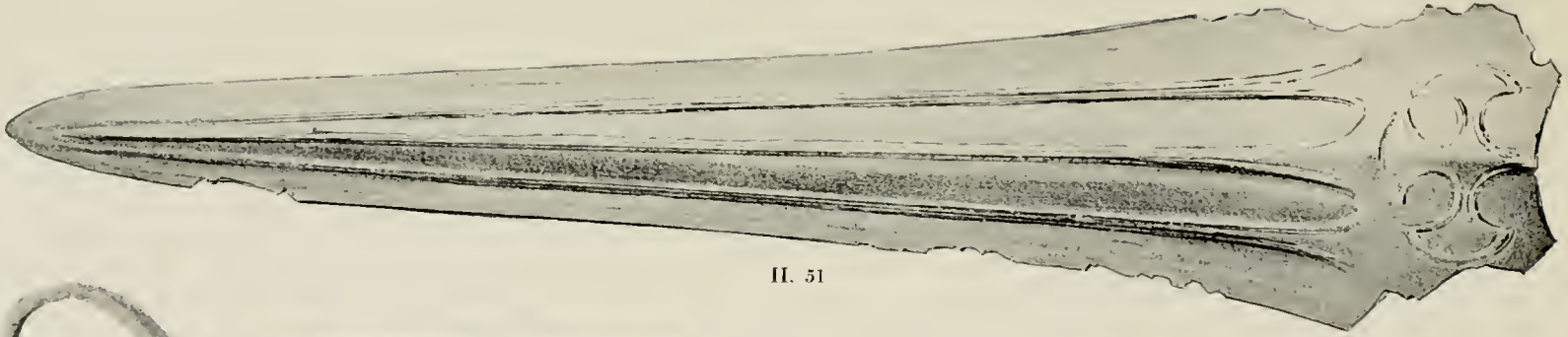
XII. *h* (FIG. 30). Two large porcelain beads (length 3.5 cm.).

XII. *i* (FIG. 30). Three-sided seal of red carnelian with two engraved faces (length 1.8 cm.). One face shows a bird with outspread wings. On another face are two curious objects, possibly birds. The third side is not engraved.

XII. *j* (FIG. 30.) Pendant of porcelain (length 2.7 cm.).

XII. *k* (NO ILLUSTRATION). Small amygdaloid bronze bead.

[1] *Anth. Publ.*, Vol. III, No. 1, p. 37, Fig. 18.



II. 51

XII. *m*

XII. *f*

FIGURE 31. SCALE ABOUT 2 : 3

XII. *l* (NO ILLUSTRATION). Several beads of brown clay like those from Tomb XV, Figure 36, No. XV, *i*.

XII. *m* (FIG. 31). Cup of buff clay covered with black glaze on which was painted a design in white (height 10.1 cm., diameter 9 cm.). The paint is badly worn. As is often the case, the dark body paint has almost entirely disappeared. Wherever the white paint of the design has protected it this body color is preserved, though the overlying white itself is worn away. Thus, though the drawing shows the cup as it looks today, one must imagine the body color as black with the meander pattern in white. The design is unusual in Minoan art, but it is interesting as it shows that something like the meander of classic Greece was known and employed centuries before by Minoan artists. It is an additional proof that much which is admired in Greek art was derived from this earlier culture of the Aegean. This cup both in form and design is one of the most graceful and charming examples of the potter's art yielded by the cemetery of Mochlos.

Tomb XIII

This is a slab-lined tomb of the usual type. It appears to date from the E. M. II period, but a part of the contents belongs to a M. M. I interment. It contained no gold ornaments of any sort and if any existed with the E. M. II burial, they were removed when the grave was reopened in the E. M. III and M. M. I periods.

The objects are as follows:

XIII. *a* (FIG. 32). Large E. M. II bowl of black burnished ware with three solid ridge handles (height 12 cm., diameter 22.5 cm.). This is one of the largest examples of its class from the cemetery and shows its early date by the handles, which are of a type common to the neolithic and E. M. I periods.

XIII. *b* (FIG. 32). Side-spouted jug of red burnished ware (height 6.7 cm., diameter 9.5 cm.).

XIII. *c* (FIG. 32). Side-spouted jug of black burnished ware (height 10.8 cm., diameter 13.7 cm.). This vase seems, on the evidence of the clay, to belong to the E. M. II period, though the shape is one which lasted through the E. M. III and into the M. M. I age.

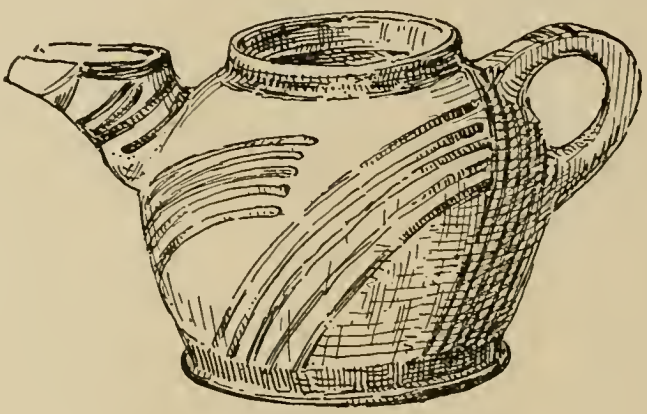
XIII. *d* (FIG. 32). Small jug of grey marble (height 3.5 cm., diameter 4.8 cm.).

XIII. *e* (FIG. 32 AND PL. IV). Shallow cup of grey and white marble (height 3 cm., diameter 8.5 cm.). This cup is an exquisite piece of workmanship; the shape seems to have been selected to show the beautiful veining of the marble to the best advantage.

XIII. *f* (FIG. 32). Small bowl of green steatite (height 2.5 cm., diameter 5.5 cm.).

The six preceding vases all belong to the E. M. II period.

XIII. *g* (FIGS. 32, 34). Vase representing a female figure holding her breasts (height 19 cm.). This figure is of E. M. III date and probably represents the same primitive nature goddess of whom so



XIII. *h*

FIGURE 33. SCALE 1 : 2

many marble examples are found in the contemporary cist graves of the Cyclades. The head of this figure is bound with a sort of fillet, the ends of which are folded in as would have been the case with a band of cloth. The little head of Figure 21 from Tomb IV, though of later date, has the same turban-like head-dress. The figure is covered with dark paint which bears a design in yellowish white. The surface is in bad condition, but enough of the decoration remains to place this vessel, beyond any possibility of doubt, in the E. M. III period.

XIII. *h* (FIGS. 32, 33). Side-spouted jug of polished buff clay on which are painted groups of obliquely curving lines in dark paint (height 9.2 cm., diameter 11.5 cm.). This design is very typical of the early part of the M. M. period and frequently occurred at Vasiliki,[1] Pseira[2] and Gournia.[3]

[1] *Trans.*, Vol. II, Part 2, p. 128, Fig. 11.
[2] *Anth. Publ.*, Vol. III, No. 1, p. 19.
[3] *Gournia*, Plate D, No. 1.

FIGURE 32. SCALE [ABOUT] 1 : 4

XIII. *i* (FIG. 32). Clay cup covered with black body paint, a broad band of white around the rim. This is a type which frequently occurs in M. M. I deposits (height 7.3 cm., diameter 8.2 cm.). The white band has almost disappeared.

XIII. *j* (FIG. 32). Side-spouted jug with two horizontal side handles (height 6.2 cm., diameter 10 cm.). This jug is covered with black paint bearing a geometrical design in white which has almost disappeared. The type is one which may be regarded as the M. M. I representative of the E. M. II and E. M. III side-spouted jugs and bowls but is easily distinguished from its predecessors by the angular outline of the body and the quality of the black and white paint. The black paint is much more metallic in the M. M. I period, and the white paint of a more chalky consistency than in E. M. III specimens.

XIII. *k* (NO ILLUSTRATION). Clay cup in bad condition (height 6.5 cm., diameter 11.2 cm.). This cup is of the same general type and design as that shown in Figure 49, No. 57, except that it has a strap handle. It is of E. M. III date.

XIII. *l* (NO ILLUSTRATION). Two handled mug of coarse red ware (height 7.7 cm., diameter 9.5 cm.). The body was once covered with dark paint which bore a spiraliform design in white, but the whole surface of the vessel is now in very bad condition. Like No. XIII, *k*, this mug belongs to the E. M. III period.

XIII. *m* (FIG. 45). Bronze knife blade (length 22 cm.). This blade is very like that from Tomb XI, No. 22 (Fig. 45) and must be of M. M. I date.

XIII. *n* (NO ILLUSTRATION). Similar knife blade, broken (length 21 cm.). This knife blade has a pronounced midrib.

Tomb XIV

A small hole in the rocks filled with bones. It contained nothing which gave any clue to its date. Only one object came to light.

XIV. *a* (FIG. 36). Small silver ring with a plain bezel (diameter of bezel 1 cm.).

Tomb XV

This built tomb, which lay against the face of a small cliff, contained a mixed deposit. The best of the stone vases point to the E. M. II or E. M. III period, whereas a silver signet shows that the

tomb was used as late as the M. M. III age, but unfortunately no pottery was found by which to date the objects, which are as follows:

XV. *a* (FIG. 37). Small pot of grey and white marble with three rim handles and a rim spout (height 4 cm., diameter 5.8 cm.).

XV. *b* (FIG. 37). Another pot almost identical in size and shape with the preceding (height 3.5 cm., diameter 4.9 cm.).

XV. *c* (FIG. 37). Small pot of the same material, but without the spout, which is replaced by a fourth rim handle (height 3.3 cm., diameter 4.6 cm.). These three pots are of a grey marble much darker in color than that which is usually found in these tombs.

XV. *d* (FIG. 37). Little jug of a rose-colored stone which rarely occurs at Mochlos (height 3.3 cm., diameter 3.5 cm.).

These four vases, Nos. XV, *a*, *b*, *c* and *d*, are probably of early date, whereas the succeeding ones belong to the M. M. I or M. M. III periods.

XV. *e* (FIG. 37). Plain black steatite cup (height 4 cm., diameter 8.3 cm.).

XV. *f* (FIG. 37). Cup of the same size and material. These cups are exactly similar to the unpainted clay votive cups of which such masses are found in all L. M. I deposits.

XV. *g* (NO ILLUSTRATION). Large bowl of coarse white limestone of the type shown in Figure 18, No. IV, 1, from Tomb IV (height 11 cm., diameter 27 cm.).

XV. *h* (FIGS. 35, 36). Silver signet seal (length 1.7 cm., diameter of field 1.3 cm.). Strangely enough, although silver is as a rule in bad preservation, this signet has not suffered from corrosion. It is of a type common in the M. M. III period, two examples of which have been described under Tomb III, No. III, *i* (Fig. 14) and Tomb X, No. X, *b* (Fig. 27).

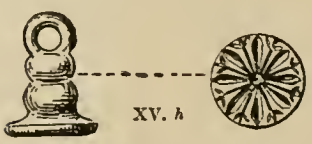


FIGURE 35. SCALE 1 : 1

XV. *i* (FIG. 36). Necklace of brown clay beads (length 28 cm.). Such beads were found in Tomb XII, which belonged to the M. M. III period. They also turned up frequently in the L. M. I houses at Mochlos.

Tomb XVI

This is a slab-lined tomb with a doorway at the south end. From the fine character of the stone vases and from the pottery we must

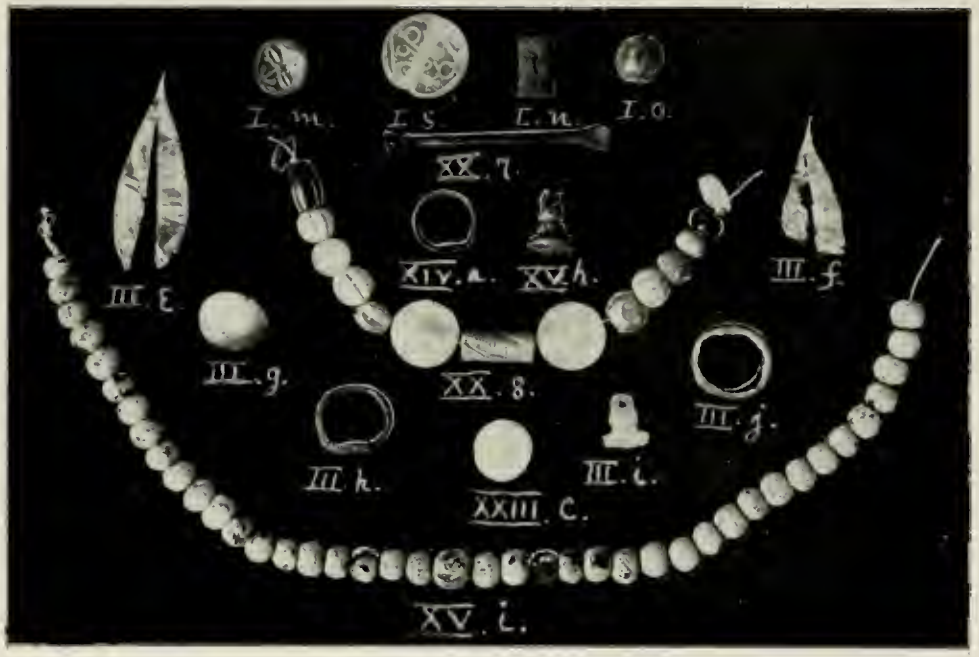


FIGURE 36. SCALE ABOUT 1 : 2

FIGURE 37. SCALE ABOUT 2 : 7

assign this grave to the E. M. II period. The matter of date is further fixed by the broad gold armlet (Fig. 38), which is the counterpart of the fragmentary armlets from Tomb II. One vase is of M. M. I date; the tomb, therefore, continued in use until that period. The objects are as follows:

XVI. 1 (FIG. 37 AND PL. I). Bowl of mottled grey and white marble on a foot, with rim spout and three rim handles (height 9.5 cm., diameter 14.5 cm.). In shape this vase recalls E. M. II clay vases, among which spouted bowls and jugs on a foot are of frequent occurrence.

XVI. 2 (FIG. 37). Small bowl of alabaster with four rim handles (height 4 cm., diameter 6.5 cm.).

XVI. 3 (FIG. 37). Small bowl of green steatite with four rim handles (height 2.2 cm., diameter 4.3 cm.).

XVI. 4 (FIG. 37). Small bowl of the same material with a rim spout and three rim handles (height 2.3 cm., diameter 4.8 cm.).

XVI. 5 (FIG. 37). Alabaster cup with hook handle (height 3.8 cm., diameter 6.1 cm.). This is a very fine piece of stone, beautifully veined.

XVI. 6 (FIG. 37). Cup and cover of the same type in breccia (height 3.5 cm., diameter 6.6 cm.).

XVI. 7 (FIG. 37). Low bowl of mottled grey and white marble (height 4.2 cm., diameter 14.4 cm.).

XVI. 8 (FIG. 37). Bridge-spouted jug of E. M. III ware (height 13.2 cm., diameter 15 cm.).

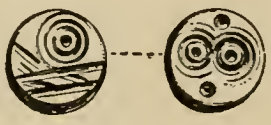
XVI. 9 (FIG. 37). Side-spouted jug of buff clay of M. M. I date (height 7.5 cm., diameter 8.3 cm.). This jug bears the typical M. M. I scroll pattern filling an oblique panel on the shoulder of the vessel. The same scroll design occurs on the polychrome vase from Tomb XI (Pl. VIII, No. XI, 16).

XVI. 10 (FIG. 37). "Fruit-stand" or cover of black burnished E. M. II ware (height 8.5 cm., diameter 19.5 cm.). Other vessels of this type occurred in Tomb I, No. I, *a*, Tomb XI, No. XI, 6, and Tomb XIX, No. XIX, 1.

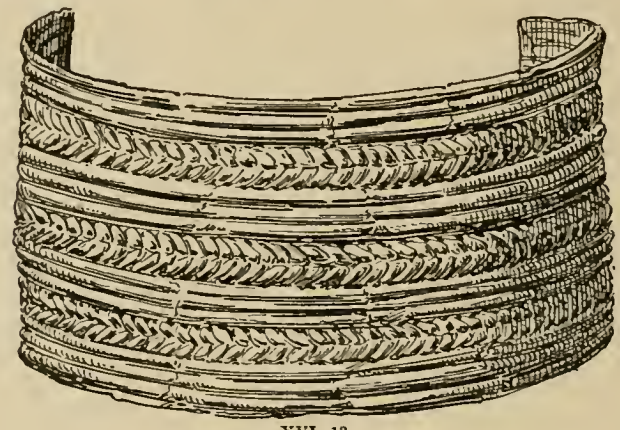
XVI. 11 (NO ILLUSTRATION). Small cover of E. M. II polished buff ware with bands of dark paint (diameter 9.5 cm.).

XVI. 12 (FIG. 38). Seal of brown steatite engraved on either face (diameter of field 1.3 cm.). This seal probably dates from the M. M. I period.

XVI. 13 (FIGS. 20, 38). Broad gold armlet (length 18 cm., width 4.4 cm.). This is the largest and heaviest gold object found in the entire cemetery. In design it is identical with the three pieces from Tomb II, Figure 8, No. II, 18, *a*, *b* and *c*. The edges are doubled back as though to grip a core of some other material, which would have been a necessity since the metal is hardly thick enough to have been worn alone. As its length is not sufficient to encircle an arm, it may be that the armlet was made of two strips, only one of which is



XVI. 12



XVI. 13

FIGURE 38. SCALE 1 : 1

preserved. Otherwise it could never have been intended to encircle the arm entirely, but could have been turned so that the gap would be on the inside against the body. In case the core was of flexible wood or leather stiffly tanned, the wearer could have forced it over the muscles of the arm in such a way that it would remain fixed in one position instead of slipping up and down.

Tomb XVII

This is a built tomb lying beside No. XV. There is nothing to show the date of the interment except three small stone vases which,

from their quality, seem to belong to either the E. M. II or the E. M. III period.

XVII. *a* (FIG. 46). Cup of green steatite, hook handle (height 2.5 cm., diameter 5 cm.).

XVII. *b* (FIG. 46). Little cup of similar shape of translucent green steatite (height 1.2 cm., diameter 2.3 cm.).

XVII. *c* (FIG. 46). Small bowl of green steatite, three rim handles (height 1.5 cm., diameter 5.7 cm.).

Tomb XVIII

This tomb lay low down the slope near the edge of the cliffs and possessed no walls of any sort, the bones and objects lying together in a natural hole in the rock. On the evidence of the pottery it would appear to be of E. M. II and E. M. III date, for it contained several vases typical of both these periods.

XVIII. *a* (FIG. 46). Cup of grey and white veined marble with hook handle (height 5.7 cm., diameter 10 cm.).

XVIII. *b* (NO ILLUSTRATION). Small clay dish covered with poor black paint (height 4.5 cm., diameter 15 cm.).

XVIII. *c* (NO ILLUSTRATION). Same of coarse red clay covered inside with a thin wash of reddish paint (height 5 cm., diameter 13 cm.).

XVIII. *d* (NO ILLUSTRATION). Straight-sided cup of buff clay highly polished (height 6.4 cm., diameter 9.2 cm.). The shape is similar to that shown in Figure 49, Nos. 56, 57. The marks of paring on the sides and the band of dark paint around the rim show that it must belong to the E. M. II period.

XVIII. *e* (NO ILLUSTRATION). Hand-made cup of brown clay, roughly pared into the required shape, type of No. 27 in Figure 48 (height 8. cm., diameter 7.5 cm.).

XVIII. *f* (NO ILLUSTRATION). Spouted mug of coarse red ware with handle, type of Figure 49, No. 49 (height 10 cm., diameter 12.3 cm.).

XVIII. *g* (NO ILLUSTRATION). Side-spouted jug of red burnished ware on tall foot; the surface is badly worn. Type of No. 65, Figure 49 (height 8.8 cm., diameter 7.4 cm.).

XVIII. *h* (NO ILLUSTRATION). Side-spouted jug of E. M. III ware with a much worn design of white chevrons on the shoulder, type of No. 74, Figure 49 (height 14.5 cm., diameter 19.2 cm.).

XVIII. *i* (FIG. 39). Part of a cylindrical seal of translucent green steatite engraved on either end (length 2.6 cm.). Unfortunately this seal had been broken and only this piece of it was found. The design on one end, *b*, is almost complete, but only a small portion of the surface at the other end is preserved.

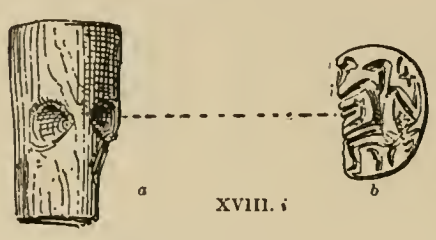


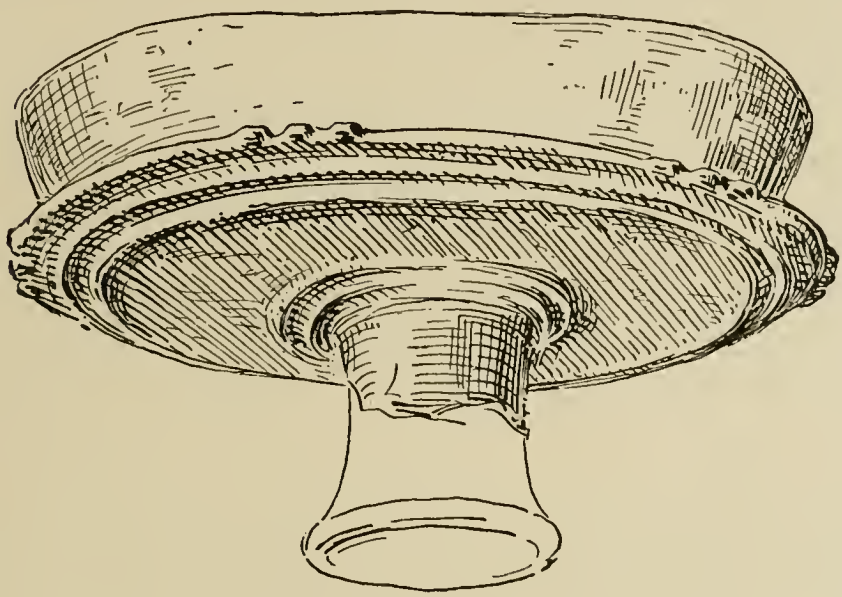
FIGURE 39. SCALE 1 : 1

Tomb XIX

This was the richest of the smaller tombs. The objects it contained belong, with three possible exceptions, to the E. M. II period. The construction was very poor, consisting of a retaining wall at the lower or southern end, with two side walls running back to the face of the cliff at the foot of which the tomb lies. The rock floor was very uneven and the objects, together with human remains, were found scattered about in every direction. The crevices of the rock all contained bits of gold foil which had slipped down from the burial deposit. At the upper end against the cliff the soil was only 10 cm. deep, and even here one of the gold hairpins was found almost on the surface. Not a potsherd of later date than the E. M. III period was found. This interment, therefore, helps to establish the conclusions drawn from the large chamber tombs, where in each case all the evidence pointed to the E. M. age as the period of fine gold-work and good stone vases. In this tomb, one of those which show no signs of M. M. interments, both these classes of objects are remarkably good. The best reason for supposing that the tomb may have continued in use during the E. M. III age is the presence of a knife blade which looks a little later than the extremely short daggers usually assigned to the E. M. II period. A small bowl of black steatite, a material very rare at Mochlos before the E. M. III period, also seems to point to burials of this date. The bronze arrowhead, No. XIX, 34, belongs to an even later period but, in all probability, it had nothing to do with the original interments. The objects from the tomb are as follows:

XIX. 1 (FIGS. 4, 40). Burnished cover or "fruit-stand" of oval form (height about 13 cm., diameter 21 by 16.5 cm.). The oval shape of this vessel is almost conclusive proof that these are not meant for covers, inasmuch as E. M. II oval vessels must have been very rare, no examples of them having yet been found in deposits of that period. The clay is dark brown, highly burnished.

XIX. 2 (FIG. 4 AND PL. IX). Slender vase of dark grey steatite of fine quality on foot (height 9 cm., diameter 5 cm.). This vase, one of the most graceful from the cemetery, is intensely modern in both design and execution. It seems almost impossible that the



XIX. 1

FIGURE 40. SCALE 1 : 2

people who were still making black burnished vessels like No. XIX, 1, the dark-on-light geometric ware of Figure 13, Nos. I, *b*, and II, *l*, and the grotesque mottled fabrics were capable of producing vases such as this one, which shows an artistic feeling far beyond that seen in any other branch of their art.

XIX. 3 (FIG. 4). Small bowl of common black steatite (height 3 cm., diameter 5 cm.).

XIX. 4 (FIG. 4). Bowl of grey crystalline marble with two suspension holes on either side (height 5.8 cm., diameter 11.4 cm.).

XIX. 5 (FIG. 4). Finely worked bowl of grey and white marble with four rim handles (height 4.2 cm., diameter 13.3 cm.).

XIX. 6 (FIG. 4). Little vase on foot similar to No. XIX, 2, of translucent green steatite (height 3.7 cm., diameter 3 cm.).

XIX. 7 (FIG. 4). Little cup of yellow alabaster (height 3 cm., diameter 4.5 cm.).

XIX. 8 (FIG. 4). E. M. II side-spouted jug of plain red ware (height 10.5 cm., diameter 7.7 cm.).

XIX. 9 (NO ILLUSTRATION). Side-spouted jug of plain red ware covered with a wash of the same color, type of No. XIII, *b*, Figure 32 (height 5.3 cm., diameter 7.3 cm.).

XIX. 10 (NO ILLUSTRATION). Cover or "fruit-stand" like No. XIX, 1, badly rotted.

FIGURE 42. SCALE 1:1

XIX. 11, *a*, *b*, *c*, *d* (FIGS. 41, 42). Four gold hairpins made to imitate daisies (length 4 to 8.5 cm.). These pins are made in two parts, the pin with its flat head forming one piece and the petals the other.

XIX. 12, *a*, *b* (FIG. 41). Two large beads of chalcedony (length 2.2 cm.).

XIX. 13, *a*, *b* (FIG. 41). Two bands of gold with geometrical dotted designs (length 14.3 cm., width 2 cm.). These bands are almost identical with one from Tomb II, Figure 9, No. II, 1. They are hardly long enough for diadems. At the ends and along the upper edge they are pierced with small holes intended either, as I have said (p. 26), for attaching pendants or for admitting pins which fastened the bands to the hair or dress.

XIX. 14 (FIG. 41). A necklace composed of carnelian, steatite, amethyst, shell and crystal beads of all shapes and sizes (length 30 cm.). The gold bead in the centre is very like one from Tomb I, Figure 6, No. I, *m*.

XIX. 15 (FIG. 43). Four strips of green steatite inlay like those from Tomb II, No. 40 (length 2.5 cm.).

XIX. 16, *a*, *b*, *c* (FIG. 43). Three gold stars evidently intended for sewing to garments, inasmuch as each point is pierced with a small hole (diameter 2.7 cm.).

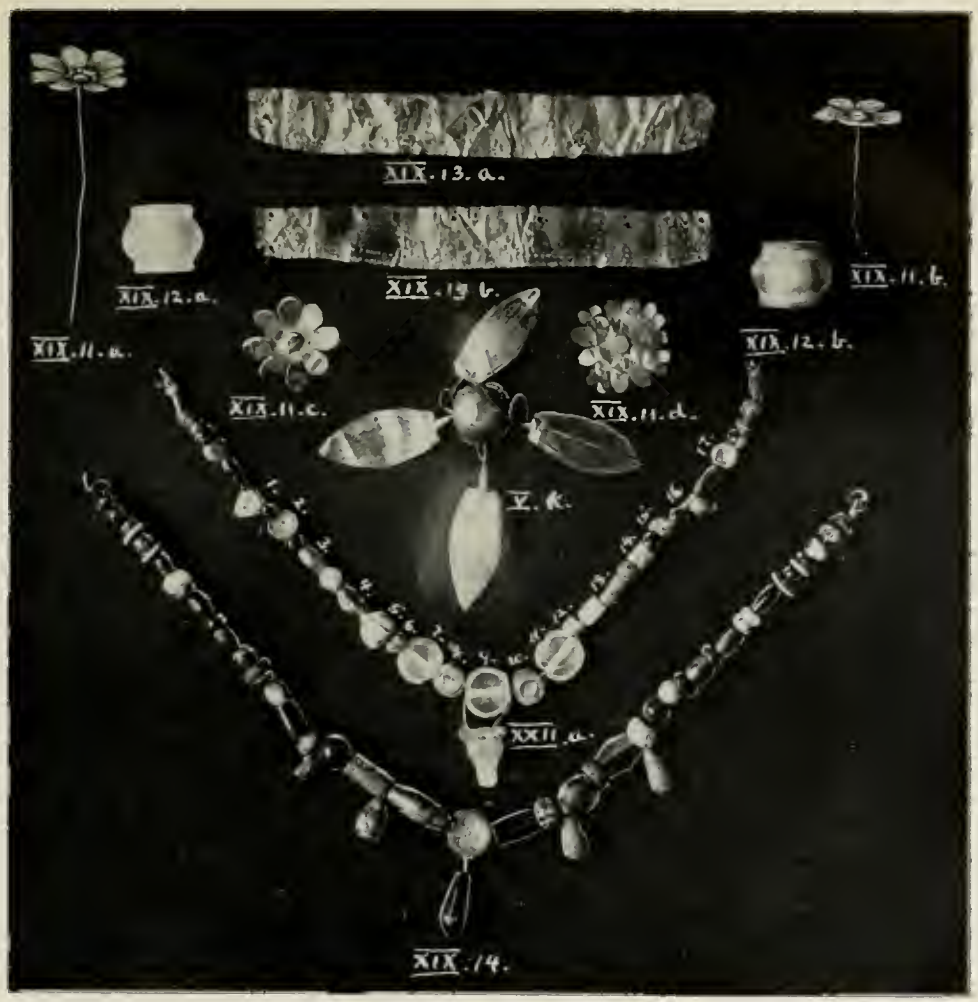


FIGURE 41. SCALE ABOUT 3 : 7

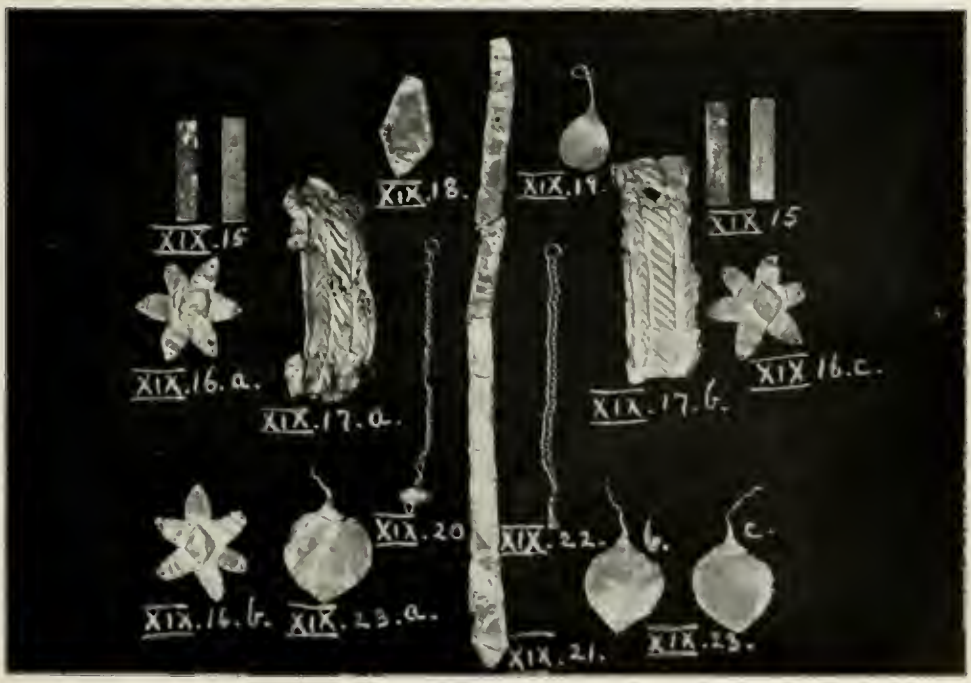


FIGURE 43. SCALE 1 : 2

XIX. 17, *a*, *b* (FIG. 43). Pieces of armlets of very thin gold, badly crushed (length 5 cm., width 2 cm.).

XIX. 18 (FIG. 43). Lozenge-shaped fragment of gold foil with a dotted border (length 2.7 cm.).

XIX. 19 (FIG. 43). Leaf-shaped pendant of gold (length 3.2 cm.).

XIX. 20 (FIG. 43). Fine gold chain divided into two parts by a leaf-shaped bit of gold. It has a ball pendant at the lower end (length 7.3 cm.).

XIX. 21 (FIG. 43). Long strip of gold foil pierced with holes at the upper end (length 16 cm.).

XIX. 22 (FIG. 43). Heavy gold chain of double links (length 7.5 cm.).

XIX. 23, *a*, *b*, *c* (FIG. 43). Three broad leaves of gold, evidently parts of a spray like those from Tomb II, Figure 10, No. II, 24 (length of each leaf 2.5 cm., width 2 cm.).

XIX. 24 (NO ILLUSTRATION). Long strip of gold foil like No. XIX, 21, but without dotted border (length 24 cm.).

XIX. 25, *a*, *b* (FIG. 44). Blades of a pair of depilatory pincers which had been mounted in a handle of perishable material (length 6.5 cm.). These blades may be copper.

XIX. 26 (FIG. 44). Small triangular dagger blade (length 6.5 cm.). This is probably copper.

XIX. 27 (FIG. 44). Large dagger blade of similar shape (length 10.5 cm.). This blade is probably of E. M. III date, for typical E. M. II daggers are usually less tapering. It is probably of copper.

XIX. 28 (FIGS. 12, 44). Pair of depilatory pincers (length 8 cm.). They are probably of copper.

XIX. 29 (FIG. 44). Small cutter, possibly of copper (length 3.2 cm.).

XIX. 30 (FIG. 44). Same, of large size (length 5.2 cm.).

XIX. 31 (FIG. 44). Slender knife blade (length 5 cm.). This was probably used for toilet purposes, as it is too small and delicate for ordinary use. It is probably of copper.

XIX. 32 (FIG. 44). Small cutter, probably of copper, type of Nos. XIX, 29, 30 (length 4.4 cm.).

XIX. 33 (FIG. 44). Pair of depilatory pincers, probably of copper (length 9 cm.). Pincers of this type were found in cist graves at Amorgos.[1]

XIX. 34 (FIG. 45). Small bronze arrowhead (length 5.2 cm.). This is the only object that may be of later date than the other things. An arrowhead would hardly be of this socketed type in the E. M. II period when weapons were still very primitive in shape and manufacture. A small object of this sort may have been dropped at a later date, *e.g.*, in the M. M. I period, and may gradually have worked down until it reached the earlier burial deposit, especially as the soil was never more than 40 cm. deep in any part of the tomb.

Tomb XX

This is another built tomb of the usual type, dating mainly from the M. M. III epoch. The last burial certainly took place in that period, although the only two clay vases found must be referred to an earlier interment. Two of the stone vessels were of a type seldom found before the beginning of the M. M. I age (Fig. 32, Nos. XX, 2, 3). Again, black steatite vases occurred in this tomb, and three spear heads which are of later date than the Early Minoan period, when, so far as we know, spears were not yet in use.

This tomb seems to have cut into an earlier burial, Tomb XXI, which lay next to it along the face of the adjacent cliff. This burial was of E. M. II and E. M. III date and, among other gold objects, contained a number of long tubular gold beads (Fig. 20, No. XXI, 19). When No. XX was cleared, several beads of exactly the same size and shape were found at the upper end of the M. M. III tomb partly underlying the wall which cut into No. XXI. It seems clear, therefore, that No. XX cut through the E. M. interment of No. XXI, to which belonged the gold beads and two clay vases; these are manifestly of earlier date than the rest of the contents of No. XX.

The objects are as follows:

XX. 1 (FIG. 32). Bowl of black burnished ware on a slender foot. It has a rim spout and one horizontal handle (height 9.2 cm., diameter 15.5 cm.). This vessel is certainly of E. M. II date, apparently a modification of the goblet type.[2] A bowl of similar shape is figured among objects from the Cycladic cist graves.[3]

[1] *Ἐφ. Ἀρχ.*, 1898, Pl. 12, No. 4; *ibid.*, 1899, Pl. 10, Nos. 40, 41, 42.
[2] *A. J. A.*, Vol. XIII, p. 279, Fig. 2, No. 1. [3] *Ἐφ. Ἀρχ.*, 1899, p. 98, Fig. 27.

Figure 44. Scale 1 : 2

FIGURE 45. SCALE ABOUT 2 : 5

XX. 2 (FIG. 32). Bowl of grey and white marble of M. M. I type (height 5 cm., diameter 8.8 cm.).

XX. 3 (FIG. 32). Large cup of black steatite (height 10.5 cm., diameter 10.5 cm.).

XX. 4 (NO ILLUSTRATION). Bowl of red stone, type of No. XX, 2, so badly rotted that it could not be preserved.

XX. 5 (NO ILLUSTRATION). Bowl of green steatite (height 3 cm., diameter 8 cm.).

XX. 6 (NO ILLUSTRATION). Clay cup, type of that from Tomb IV, No. IV, 2 (Fig. 19), painted with bands of white (height 7.1 cm., diameter 10.8 cm.).

XX. 7 (FIG. 36). Silver ear pick (length 5.7 cm.).

XX. 8 (FIG. 36). String of beads of various sorts. There are two large flat amethyst beads, a carved cylindrical bead of green steatite, one fluted gold bead, two of carnelian and four of porcelain. These porcelain beads are of the grooved type which never occurs in the earlier graves.

XX. 9 (FIG. 45). Bronze knife blade (length 13 cm.). This has a very late look and might well be classed as of M. M. III date.

XX. 10 (FIG. 45). Bronze spear head (length 28 cm.).

XX. 11 (FIG. 45). Same (length 33.4 cm.). Bound with a metal band where the haft entered the socket.

XX. 12 (FIG. 45). Same (length 28 cm.). This was intended for a wooden handle of greater thickness than the two preceding, as the diameter of the socket hole is 2.7 cm., whereas in No. 10, it is only 1.8 cm., and in No. 11, 2.2 cm. Apparently spear heads were very seldom, if ever, made before the M. M. III period. At any rate I know of no earlier examples.

XX. 13 (NO ILLUSTRATION). Knife blade like No. XX, 9 (length 10.5 cm.).

Tomb XXI

This is a slab-lined tomb and belongs, as do all the richest tombs, to the Early Minoan period. As has been said, it was cut into by No. XX in the M. M. period, but many objects lying in a narrow crevice against the overhanging cliff had escaped untouched.

One wall, which surely belonged to the original tomb, is that on the south, and this was broken by the doorway leading into the tomb chamber. It is possible that the west wall of No. XX is the original west wall of No. XXI, since it is formed of upright slabs and is apparently of early construction. It seems probable that in the M. M. period the original chamber was cut in half by the wall of small stones which forms the east wall of No. XX. If this was the case, the original enclosure was a large one, about 2 m. square.

The pottery was of the E. M. II and E. M. III periods; no later objects of any sort were found. The stone vases were of very fine workmanship. The best objects lay in a crevice of the rock near the back of the tomb; near the entrance three clay vases were found. The bones of many bodies were discovered in the tomb chamber. It would appear that the earliest remains were piled at the far end from the doorway and, as more were added, the deposit gradually spread toward the entrance, where bones were found mixed with vases of the E. M. III period, to which one must assign the final abandonment of the tomb.

The objects from the tomb are as follows:

XXI. 1 (FIG. 46). Small spouted bowl of alabaster (height 4.5 cm., diameter 6.8 cm.).

XXI. 2 (FIG. 46). Vase of mottled green steatite (height 4.8 cm., diameter 4.1 cm.).

XXI. 3 (FIG. 46). Cup of grey and white veined marble with hook handle. This is an exquisite piece of work; the walls are as thin as those of a china tea-cup (height 4.3 cm., diameter 10.5 cm.).

XXI. 4 (FIG. 46). Small cup and cover of alabaster. This is a stone example of the common clay cup of the E. M. III period (height 3.5 cm., diameter 4.7 cm.).

XXI. 5 (FIG. 46). Clay vase of early shape bearing a geometrical white design which would lead one to assign it to the E. M. III period (height 13.9 cm., diameter 10.6 cm.).

XXI. 6 (FIG. 46). Cover of breccia (height 3.5 cm., diameter 6 cm.). This kind of cover is derived from very early neolithic and E. M. I clay types. Similar examples were found in Cycladic cist graves in Syros.[1] The vases from Hagios Nikolaos near Palaikastro possess such clay covers.[2]

[1] *Ἐφ. Ἀρχ.*, 1899, Pl. 8, Nos. 11, 11*a*. [2] *B. S. A.*, Vol. IX, p. 341, Figs. 1, 2.

Figure 46. Scale about 1 : 3

XXI. 7 (FIG. 46 AND PL. VII). Grey marble cup on foot (height 5.7 cm., diameter 7.2 cm.). This is the familiar "egg cup" shape so typical of E. M. II pottery.[1]

XXI. 8 (FIG. 46). Sword pommel of alabaster (diameter 3.7 cm.). This is the type of pommel found in L. M. II and L. M. III graves, which shows that the same type existed unchanged through a long space of time.

XXI. 9 (FIG. 46). Cup of grey marble (height 4 cm., diameter 7.5 cm.).

XXI. 10 (FIG. 46 AND PL. III). White alabaster vase on foot, with four knob handles on the shoulder (height 6.4 cm., diameter 8 cm.). This vase is of a decidedly Cycladic type, both in shape and material.[2] The vases of Figure 46, No. VII, *a*, and Figure 47, No. 12, are in the same material. The latter also has a Cycladic look; it is quite possible that these are really importations and not Cretan at all. The workmanship is somewhat inferior to that of the other vases, and the material would appear to be of foreign origin.

XXI. 11 (NO ILLUSTRATION). Jug of buff polished clay with a broad festoon of dark paint around the body. There is a clay rivet on the neck (height 15 cm., diameter 14 cm.). The vase, which is gourd shaped, has the neck slightly tipped back.

XXI. 12 (NO ILLUSTRATION). Badly preserved jug of red polished ware (height about 15 cm., diameter 12.2 cm.). The neck is lacking.

XXI. 13 (FIG. 20). Six tiny leaf-shaped pendants in gold which resemble those from Tomb II, Figure 10, No. II, 19 (length 1.5 to 2 cm.).

XXI. 14 (FIG. 20). Cross-shaped ornament of thin gold, evidently intended to be pasted to some other object; there are no holes for sewing (diameter 7 cm.).

XXI. 15 (FIG. 20). Leaf of gold, evidently part of a spray like those from Tomb II, Figure 10, No. II, 24 (length 4.5 cm.).

XXI. 16 (FIG. 20). Leaf of gold like those belonging to the gold ornament from Tomb V, Figure 41, No. V, *k* (length 4.5 cm.).

XXI. 17, *a*, *b* (FIG. 20). Two hoops of thin gold wire (diameter 1.7 cm.).

[1] *Gournia*, Pl. XII, No. 15. [2] *Ἐφ. Ἀρχ.*, 1898, Pl. 10, Nos. 16, 17.

XXI. 18 (FIG. 20). Tiny human mask in gold foil, evidently the covering of a core of perishable material (length 7 mm.).

XXI. 19 (FIG. 20). Chain of tubular gold beads alternating with small flat ones (length 60 cm.). This necklace comes partly from this tomb and partly from the adjoining tomb No. XX. The long beads are very like the common porcelain "mummy" beads of Egypt.

XXI. 20 (FIG. 44). Cutter, probably of copper (length 7.3 cm.). This is the largest of its kind from the cemetery; it was attached to the handle by three instead of the usual two rivets.

XXI. 21 (FIG. 44). Dagger blade, probably copper, of the short E. M. II triangular type (length 8.3 cm.).

XXI. 22 (FIG. 44). Dagger blade, probably copper, which shows a slight advance over the preceding toward the more tapering shape of the M. M. I knife blades (length 15.4 cm.). The pommel, No. XXI, 8, may belong to this dagger blade, which is the only one of large size found in the tomb.

In addition to these objects a great number of scraps and fragments of gold foil were found, doubtless the remains of ornaments destroyed in the disturbances caused by cutting away a part of the burial deposit to make room for Tomb XX.

Tomb XXII

This is a very narrow grave or rather trench lying just outside the west wall of No. XX. The grave had a very poor wall on the western side, but there were no walls at either of the narrow north and south ends. No pottery was found with this interment, but the character of the gold work, which is very different from that found in the other tombs, makes it fairly certain that the grave dates from the L. M. I period.

XXII. *a* (FIG. 41 AND PL. X). Short necklace of gold, crystal, amethyst and carnelian beads. The beads numbered 1, 14 and 16 in Figure 41 give certain evidence as to the date of the necklace. They must belong to the L. M. I period, if not to an even later epoch, inasmuch as they are of a type common in L. M. II and L. M. III graves on the Greek mainland. No. 12 is an electrum bead and Nos. 5, 7, 9 and 11 are of chalcedony. The bull's head pendant

is of amethyst. Gold heads of the same sort often occur in the jewelry of the Late Minoan periods; several such heads exquisitely worked in gold were found at Hagia Triada.[1]

XXII. *b* (NO ILLUSTRATION). Large bronze ring (diameter 1.5 cm.). The bezel is so badly corroded that the engraving cannot be made out.

XXII. *c* (NO ILLUSTRATION). Large amygdaloid bead of bronze (length 2 cm.).

XXII. *d* (NO ILLUSTRATION). Plain gold ring bezel (diameter 1.7 cm.).

XXII. *e* (NO ILLUSTRATION). Amygdaloid seal of green steatite with design of crescents (length 2 cm.).

Tomb XXIII

This tomb appears to belong to the E. M. II and E. M. III periods. It lay in a line with No. XIX, and all four of the tombs in this row, backing against the cliff, would seem to have been built at the same time, although two of them contained no objects of any sort. There are no clay vases by which to date this grave, but a tall breccia vase and some strips of gold foil are typical of the E. M. II period. The tomb is long and narrow, with a doorway at the lower end (length 2.80 m., width 1 m.). The walls are built partly of small upright slabs, partly of horizontal courses of small stones. It contained very few objects of any sort and, as the tombs to the right and left of it were quite empty, it seems probable that they had all been plundered.

XXIII. *a* (FIG. 46 AND PL. III). Tall breccia vase with spout, two suspension handles, and one button handle. This is the largest piece of breccia from the entire cemetery (height 16.7 cm., diameter 9 cm.). This material is usually confined to vases of very small size, for it is often full of flaws and breaks easily. This shape recalls certain forms of E. M. III clay vases and is evidently the prototype of the tall, slender M. M. III vases, some fine examples of which were found at Knossos.[2]

XXIII. *b* (FIG. 20). String of minute gold beads. It was necessary to sift the earth from this tomb several times and even then a certain number of these beads probably escaped unobserved as some of them are no bigger than a pin head.

[1] *Mon. Ant.*, Vol. XIV, p. 731, Fig. 27. [2] *B. S. A.*, Vol. VIII, p. 91, Fig. 51, Nos. 7, 10.

XXIII. *c* (FIG. 20). White limestone pendant in shape of a pyxis (height 1 cm., diameter 1.5 cm.).

OTHER STONE VASES FROM THE CEMETERY

These vases were found scattered about on the main tomb slope and apparently came from graves which had been completely destroyed at an early period. Most of them belong to the class of Early Minoan stone vases characterized by their hard materials and fine workmanship, features which we have already noted in describing vases from undisturbed tombs of the E. M. period. The M (miscellaneous) before the following catalogue numbers is introduced to show that the vases so marked were not found in tombs but were strewn about in the surface soil of the cemetery.

M. 1 (FIG. 47). Small bowl of opaque green steatite (height 5 mm., diameter 3 cm.).

M. 2 (FIG. 47). Small goblet of green steatite on a foot (height 4 cm., diameter 1.5 cm.).

M. 3 (FIG. 47 AND PL. II). Vase of grey and white marble (height 4 cm., diameter 2 cm.). This shape is typical of VIth Dynasty Egyptian stone vases. A similar vase was found at Porti in the Messara by Dr. Xanthoudides in an E. M. deposit.

M. 4 (FIG. 47). Small bowl of green steatite with hook handle (height 1.7 cm., diameter 4.1 cm.).

M. 5 (FIG. 47). Small idol of white marble (height 6 cm.). It is very roughly made with no attempt at reproducing the features. Similar idols were found in the tholos at Hagia Triada.[1]

M. 6 (FIG. 47). Bowl of translucent green steatite with rim spout and handle (height 2.5 cm., diameter 5 cm.).

M. 7 (FIG. 47 AND PL. II). Small goblet of red and orange limestone (height 5.5 cm., diameter 4 cm.). This is a very curious material and at first glance appears to be made of two separate pieces of stone fastened together, so marked is the difference in coloring of the halves.

M. 8 (FIG. 47). Small bowl of green steatite with two rim handles (height 1.7 cm., diameter 4.6 cm.).

[1] *Mon. Ant.*, Vol. XXI, Pl. XI, No. 27.

FIGURE 47. SCALE ABOUT 1 : 3

M. 9 (FIG. 47). Small bowl of green steatite with horizontal rim handle (height 1 cm., diameter 2.2 cm.).

M. 10 (FIG. 47). Small bowl of green steatite with a fluted edge (height 1.6 cm., diameter 5.5 cm.).

M. 11 (FIG. 47). Small alabaster cup on foot (height 2.7 cm., diameter 4 cm.).

M. 12 (FIG. 47 AND PL. IX). Small bowl of white alabaster (height 2.2 cm., diameter 3.5 cm.). This has the same Cycladic look noticed in the other two vases of this material from the cemetery (Fig. 46, Nos. VII, *a* and XXI, 10).

M. 13 (FIG. 47 AND PL. IX). Small bowl with flaring rim, of richly veined alabaster (height 2.5 cm., diameter 5.8 cm.).

M. 14 (FIG. 47). Little bowl of grey veined marble with two rim handles (height 1.5 cm., diameter 4.3 cm.).

M. 15 (FIG. 47 AND PL. IX). Bowl of pink and grey breccia (height 3 cm., diameter 6.7 cm.).

M. 16 (FIG. 47). Bowl of grey marble with rim spout and handle (height 2 cm., diameter 3.9 cm.).

M. 17 (FIG. 47). Bowl of rose-colored stone (height 1.7 cm., diameter 5.2 cm.). Vases of this material were of very rare occurrence; only one other was found in the cemetery (Fig. 37, No. XV, *d*).

M. 18 (FIG. 47). Round-bodied bowl and cover of breccia (height 4.3 cm., diameter 8.2 cm.).

M. 19 (FIG. 47). Bowl of grey and white marble, with rim spout and three rim handles (height 4 cm., diameter 8 cm.).

M. 20 (FIG. 47). Alabaster cup with horizontal rim handle (height 5 cm., diameter 8.5 cm.).

M. 21 (FIG. 47). Pot and cover of grey marble (height 6.8 cm., diameter 7 cm.).

MISCELLANEOUS CLAY VASES

These vases, like the stone vases of Figure 47, were found scattered about in the soil of the cemetery. The first twenty-five, shown in Figure 48, Nos. 22–46, all belong to the E. M. I and E. M. II periods.

M. 22. Side-spouted jug of dark burnished ware (height 11.3 cm., diameter 11 cm.).

M. 23. Same (height 10.5 cm., diameter 9.9 cm.).

M. 24. Straight-sided cup of dark burnished ware with horizontal strap handle (height 8.7 cm., diameter 11.5 cm.).

M. 25. Cup of same material, with spout at right angle to handle (height 7.3 cm., diameter 11.9 cm.).

M. 26. Same, smaller size (height 4.7 cm., diameter 9 cm.).

M. 27. Cup of dark burnished ware (height 7.8 cm., diameter 9 cm.).

M. 28. Bowl, same material, spout and three rim handles (height 5.3 cm., diameter 8.7 cm.). This is the clay prototype of the stone bowls like No. 19 of Figure 47.

M. 29. Ladle of red clay (length 20 cm., diameter of bowl 7.5 cm.).

M. 30. Same, with short handle (length 15 cm., diameter of bowl 7 cm.).

M. 31. Object of red clay resembling "horns of consecration" (length 19 cm., height 9 cm.).

M. 32. Vase of black ware (height 8 cm., diameter 10 cm.).

M. 33. Same, of smaller size (height 7.1 cm., diameter 7.1 cm.).

M. 34. Tiny dish or saucer of dark grey clay on a foot (height 4.5 cm., diameter 7.1 cm.).

M. 35. Ring of red clay (diameter 9.5 cm.). This may have been used to support round-bottomed vases.

M. 36. Small cup of red clay (height 4 cm., diameter 6.2 cm.).

M. 37. Square lump of coarse brown clay, pierced with vertical suspension holes at each corner (height 4.5 cm., diameter 8.5 cm.).

M. 38. Same, of larger size (height 4 cm., diameter 9 cm.).

M. 39. Cup of red clay with small knob-like handle (height 4.2 cm., diameter 5.6 cm.).

M. 40. Clay ring like M, 35 (height 5.8 cm., diameter 8.5 to 9.4 cm.).

FIGURE 48. SCALE ABOUT 1 : 6

M. 41. Ladle of red clay like M, 29 and M, 30 (length 14.7 cm.).

M. 42. Same (length 15.5 cm.).

M. 43. Side-spouted jug of brown clay (height 12 cm., diameter 15 cm.).

M. 44. Same, with short spout (height 15 cm., diameter 13.5 cm.). Design in waves of dark paint with double rows of dots between each pair of waves.

M. 45. Jug of red clay (height 15 cm., diameter 9.5 cm.).

M. 46. Side-spouted jug of black burnished ware (height 18.8 cm., diameter 19.5 cm.).

The twenty-nine vases in Figure 49 belong for the most part to the E. M. III and the M. M. I periods.

M. 47. Small side-spouted jug of polished black ware of E. M. II date (height 6.3 cm., diameter 6 cm.).

M. 48. Same (height 7 cm., diameter 8 cm.).

M. 49. Spouted bowl of E. M. III light-on-dark geometric ware (height 7.2 cm., diameter 9.7 cm.).

M. 50. Cup of E. M. II red ware (height 5 cm., diameter 6 cm.).

M. 51. Jug of M. M. I light-on-dark ware (height 4.5 cm., diameter 5.3 cm.).

M. 52. Same, of larger size (height 7 cm., diameter 5.8 cm.).

M. 53. M. M. I cup covered with dark paint (height 5.5 cm., diameter 6.8 cm.).

M. 54. E. M. III cup of red clay (height 6.1 cm., diameter 7 cm.).

M. 55. M. M. I cup covered with dark paint and with a broad white band around the rim (height 6.2 cm., diameter 8.5 cm.).

M. 56. E. M. III cup with design of barred triangles in white paint on the dark band around the rim (height 4.7 cm., diameter 10 cm.).

M. 57. Cup of same shape covered with dark paint. The design of barred white triangles on the rim is common in the E. M. III period (height 7.5 cm., diameter 11.5 cm.).

M. 58. E. M. III cup of the round-bodied type with design of white bands and waves on a dark ground (height 5 cm., diameter 8 cm.).

M. 59. E. M. III cup with oblique latticed panels in white paint on a dark ground (height 6.2 cm., diameter 7 cm.).

M. 60. E. M. III cup, type of No. M, 58. Bands and spiral design in white on a dark ground (height 5.1 cm., diameter 7 cm.).

M. 61. E. M. III cup covered with dark paint with barred triangles of white around the rim (height 6.6 cm., diameter 10.5 cm.).

M. 62. Same, of smaller size (height 6.2 cm., diameter 10 cm.).

M. 63. Same type (height 7.7 cm., diameter 11.1 cm.).

M. 64. E. M. III cup of red clay with faint trace of a white design of groups of vertical lines from base to rim both inside and out (height 7.3 cm., diameter 9.5 cm.).

M. 65. E. M. II side-spouted vase of red clay on a tall foot (height 6.5 cm., diameter 4.5 cm.).

M. 66. M. M. I jug of polished buff clay (height 6.8 cm., diameter 5.8 cm.).

M. 67. M. M. I side-spouted jug on three small feet. Polished buff clay with an oblique panel of dark paint on the shoulder (height 7 cm., diameter 6.5 cm.).

M. 68. M. M. I jug of polished buff clay (height 10 cm., diameter 8.2 cm.).

M. 69. Same type as No. M, 67 (height 8 cm., diameter 7.4 cm.).

M. 70. M. M. I jug of polished buff clay with vertical panel of chevrons in dark paint (height 7.8 cm., diameter 6.8 cm.). This jug was found near the surface in Tomb VI.

M. 71. Same type as Nos. M, 67 and M, 69. Polished buff clay with faint traces of a dark design on the shoulder (height 7.6 cm., diameter 7 cm.).

M. 72. M. M. I side-spouted jug of red clay covered with a sort of black varnish (height 13.8 cm., diameter 13.2 cm.).

FIGURE 49. SCALE ABOUT 1 : 6

M. 73. M. M. I side-spouted jug covered with dark paint, faint traces of a white design in oblique panels on shoulder (height 7.2 cm., diameter 10.8 cm.).

M. 74. E. M. III side-spouted jug (height 14.2 cm., diameter 17.3 cm.). This is a very well preserved example of the E. M. III light-on-dark geometric ware.

M. 75. M. M. I example of the same type of jug. The body is covered with black paint much worn and has an oblique panel of incised chevrons on the shoulder on both sides of the vessel (height 11.5 cm., diameter 17.5 cm.). The M. M. vases of this type differ from their E. M. prototypes both as regards their spouts, which are usually short, and as regards the quality of the black and white paints, which are less durable in the later period.

The seventeen vases shown in Figure 50 are, for the most part, of M. M. I date.

M. 76. E. M. II clay cup of coarse brown ware (height 4.8 cm., diameter 7.6 cm.).

M. 77. M. M. I saucer of red clay (height 2 cm., diameter 5.6 cm.).

M. 78. M. M. I cup of buff polished clay covered with spots of dark paint (height 6.2 cm., diameter 7.5 cm.).

M. 79. Identical with No. 77 (height 2.4 cm., diameter 5.1 cm.).

M. 80 (FIG. 50 AND PL. VIII). M. M. I jug covered with black paint (height 12.2 cm., diameter 9.9 cm.). The jug has a band of red around the neck and a design in white on the shoulder. The white design recalls the double axe motive and is often found in the dark-on-light E. M. II and M. M. I wares.[1]

M. 81. Similar to No. 79 (height 1.2 cm., diameter 5.2 cm.).

M. 82. M. M. I cup with white bands around the rim (height 5.1 cm., diameter 10.4 cm.).

M. 83. Like Nos. 77, 79 and 81 (height 1.7 cm., diameter 5.6 cm.). These four saucers, with 12 similar ones, were found together in the earth near Tomb XVI.

M. 84. M. M. I cup of polished buff clay (height 7.6 cm., diameter 11.6 cm.). The design of cross-hatched triangles in dark paint is much worn.

[1] *B. S. A.*, Vol. IX, p. 95, Fig. 65, *p*.

M. 85. E. M. II "egg-cup" in black ware, described under Tomb VIII, No. *b* (height 9.4 cm., diameter 9.2 cm.).

M. 86. Clay cup of E. M. III date (height 6.6 cm., diameter 8 cm.).

M. 87. E. M. II bowl of dark burnished ware with ridge handles (height 7.1 cm., diameter 14.6 cm.).

M. 88. Cup covered with dark paint and with a white design of barred festoons around the rim (height 6.5 cm., diameter 10.6 cm.). This shape is characteristic of the M. M. I period, although the design bears a close resemblance to that found on E. M. III cups. This specimen must belong to the period of transition between the two periods.

M. 89. E. M. III cup of common type with much worn design in white on a dark ground (height 5.1 cm., diameter 7.5 cm.).

M. 90. Side-spouted E. M. II jug of red ware, much worn (height 12.8 cm., diameter 18.8 cm.).

M. 91. M. M. I bowl of polished buff clay (height 6.5 cm., diameter 22 cm.).

M. 92. M. M. I side-spouted jug with a band of incisions across the shoulder (height 10.9 cm., diameter 16.4 cm.). This jug, like the cup No. M, 88, belongs to the transitional period between the E. M. III and M. M. I epochs.

Besides these 71 clay vases there are 136 others from various parts of the cemetery; nearly all of these were in very bad condition and do not require a detailed description. Most of them lay near the surface and had suffered severely from centuries of winter rains.

M. 93–97. Black burnished jugs, type of No. 46 (Fig. 48).

M. 98–103. Ladles, type of Nos. 29, 30, 41, 42 (Fig. 48).

M. 104–106. Black burnished "fruit stands," type of Figure 4, No. I, *a*.

M. 107. Small side-spouted jug similar to No. 47 (Fig. 49).

M. 108–111. Black burnished E. M. II cups, type of No. 27 (Fig. 48).

M. 112. Square lump of clay pierced at the corners, type of Nos. 37, 38 (Fig. 48).

FIGURE 50. SCALE ABOUT 1 : 5

M. 113–116. Little dishes on feet, type of No. 34 (Fig. 48).

M. 117, 118. Clay rings like No. 35 (Fig. 48).

M. 119–121. Round-bodied cups, types of Nos. 58–60 (Fig. 49).

M. 122–124. Small round-necked jugs, type of Nos. 51, 52 (Fig. 49).

M. 125, 126. Side-spouted jugs, type of No. 48 (Fig. 49).

M. 127, 128. Two cups of polished buff ware.

M. 129. Low open bowl, type of No. 91 (Fig. 50).

M. 130. Spouted jug, type of No. 49 (Fig. 49).

M. 131–142. Little saucers, type of No. 77 (Fig. 50).

M. 143. Side-spouted jug, type of No. 74 (Fig. 49).

M. 144–149. Small side-spouted jugs, type of No. 73 (Fig. 49).

M. 150, 151. Same, type of Nos. 67, 69, 71 (Fig. 49).

M. 152–157. Large side-spouted jugs, type of No. 43 (Fig. 48).

M. 158, 159. Similar to above, with mottled surfaces.

M. 160–165. Cups of coarse red ware.

M. 166–168. Side-spouted jugs, type of No. 22 (Fig. 48).

M. 169, 170. Jugs, type of No. 45 (Fig. 48).

M. 171–173. Saucers, type of Figure 13, No. II, *l*.

M. 174–177. Cups, type of No. 88 (Fig. 50).

M. 178, 179. Polychrome M. M. I mugs, type of No. 49 (Fig. 49).

M. 180–228. Clay vessels of various kinds, so badly rotted as to be quite valueless.

CHILD BURIALS OF THE M. M. III AND L. M. I PERIODS

These curious burials were found scattered about on various parts of the tomb slope. The bodies had been placed in inverted jars with no protecting walls and at no great depth. Many of the jars had been destroyed in the process of denudation which had played such havoc with some of the built tombs. They were often found

lying in the surface soil over undisturbed tombs of earlier date, so that even at the time of interment it was evidently not considered necessary to place these jars at any great depth. The few bones that came to light were, in every case, those of very young children, and indeed some of the jars were so small that it would have been impossible for them to contain anything larger than a new born infant. In no case were any objects found with the interments.

The bones were naturally very fragmentary. In one jar part of the skull remained but crumbled to dust as soon as the jar was removed exposing it to the air. In four of the jars only small fragments of bone remained, and in five others all bones had disappeared.

Fortunately we can date these burials with perfect certainty, as seven out of the fifteen jars found were painted in the unmistakable L. M. I style. Of the remaining eight jars only one was painted, but the shapes are all characteristic of the M. M. III period. Only nine of the fifteen jars were found *in situ*. The remainder, much broken, were scattered about the hillside in the surface soil and had suffered badly from exposure. Four jars had their painted surfaces fairly well preserved. The two best are shown in Plate XI and in Figure 51.

Figure 51 is a very fine example of the M. M. III monochrone light-on-dark style (height 48 cm., diameter 40 cm.). The design is a favorite one in this and the succeeding period. The pairs of incised double axes between the handles were picked out with a border of white dots, which have almost entirely disappeared. The chain motive around the neck is of very early origin and can be traced back to the E. M. III period.[1]

Plate XI is a very fine jar of the L. M. I style and belongs to the early part of that period. The ripple design which covers the base seldom appears toward the end of the L. M. I age and is more characteristic of the preceding M. M. III style. The profuse use of white paint also tends to place this jar in the transitional stage which divides the M. M. III and L. M. I periods. Unfortunately the paint is badly worn, but enough remains to give one a vivid idea of the splendid effect of this jar in its original state. The curious designs in white on the broad black band around the middle are unique and not easily described. A good deal of red paint is employed, especially in the band just below the handles, which shows that the tradition of M. M. polychromy still exercised a strong influence on the slowly developing L. M. I style. The shape is unusual in the L. M.

[1] *Trans.*, Vol. I, Part III, Pl. XXVII, Nos. 15, 16; Pl. XXVIII, Nos. 19, 20, 23; Pl. XXX, Nos. 4, 5, 14, 15; and Pl. XXXIII, Nos. 5, 8.

FIGURE 51. M. M. III BURIAL JAR. SCALE 1 : 5

I period and seems to be a sort of compromise between the tall slender M. M. III type and the round-bodied L. M. I jars (height 56 cm., diameter 39.5 cm.).

At Mochlos [1] and at Pseira [2] a class of rippled ware seems to have appeared sometime in the M. M. III period and to have attained great popularity. As the true L. M. I style begins to make itself felt, this rippled ware partially, though not entirely, disappears before the wave of naturalism which overwhelms the conventional decorative designs of the M. M. period. In this jar one sees the three styles—the polychrome, the ripple and the naturalistic—all used together.

The two other painted jars which were fairly well preserved are almost identical with that represented in *A. J. A.*, Vol. XIII, p. 298, Figure 19. This is the fully developed local L. M. I style, and jars of this shape with similar designs were very common in these small Minoan towns of Eastern Crete. In fact, five were found at Pseira[3] in 1907 and two in the Mochlos houses in 1908. One or two examples were found at Gournia in 1904.[4]

A LATE MINOAN I BURIAL

In the surface soil over Tomb IX the first strokes of the pick uncovered the much rotted remains of a small bronze bowl which proved to belong to an L. M. I burial. There was no sign of enclosing walls nor, with the exception of a group of objects lying close together near the surface, anything that indicated an interment. The bones had entirely disappeared, and it is impossible to say whether the burial was that of an adult or merely one of the child burials which were found scattered about this slope over the earlier graves. Doubtless a certain number of objects must have been swept away by the action of the winter rains, and the few vases remaining had suffered so badly that it was possible to preserve only one of them, which is shown in Figure 26, A (height 3.6 cm., diameter 13.5 cm.). These vases, three in number, were shallow bronze bowls of much the same size, unengraved and of very thin metal. No pottery was found and only two small objects came to light. These suffice, however, to fix the date of the interment. One of them, the gold signet ring of Figure 52, is the most valuable object yielded by the cemetery of Mochlos. Although it is of small size, the preservation and workmanship are so admirable that this ring must rank with the best rings

[1] *A. J. A.*, Vol. XIII, p. 284 and Pl. VIII.
[2] *Anth. Publ.*, Vol. III, No. 1, p. 20.
[3] *Anth. Publ.*, Vol. III, No. 1, p. 33, Fig. 14.
[4] *Gournia*, Pl. IX, No. 28a and Pl. K.

of the kind from Mycenae and other sites on the Greek mainland. Few such rings have as yet come to light in Crete and these few are in no way remarkable either for workmanship or good preservation.[1]

The importance of this signet lies in the curious scene engraved on the bezel. Most of this class of rings bear cult scenes, and this specimen is no exception to the rule, although it presents several new and unusual features. The goddess, who so often figures on the rings from the mainland, is shown in a new aspect, namely, as arriving in her ceremonial barge at a rocky shore on which stands a small building, evidently the usual pillar shrine. The barge has a high curved stern carved to represent a dog's head, and the bow resembles a fish's tail. The shape of the boat may refer to a tradition that the goddess first reached the Minoan land riding on the back of a sea monster who had carried her across the sea to her new home. At any rate there is good reason to suppose that we see here the type of sacred barge supposed to be peculiar to the Cretan Mother Goddess. That the figure in the boat is that of a woman is probable, judging by her ample form.[2] Her sacred tree, apparently a fig as pointed out by Dr. Evans, grows out of a throne-like structure which may represent the railed enclosure by which it was always surrounded.[3]

The goddess, who is seated with her right hand resting on this railing, is waving her left towards the pillar shrine from which a curious flaming symbol appears to be flying toward her.[4]

All three symbols in the field are entirely new to Minoan cult scenes and difficult of interpretation. The flaming object bears a

[1] Since this was written, a fine ring of this sort has been found in one of the Royal Tombs at Knossos.

[2] Since I wrote the above, doubts have been cast on the sex of the figure in the boat. The ring is of such small size and the carving so minute that the artist did not attempt to do more than show that the figure was meant to be human. The question partly hangs on whether the figure is clothed. It rarely, if ever, occurs that the Minoan goddess is shown in an absolutely nude state, though she sometimes appears clad in nothing but a short flounced skirt. Certainly on the Mochlos ring it is difficult to distinguish any signs of a garment unless it be a belt around the waist, which is pinched in after the Minoan fashion. There seems to be a faint attempt to indicate female breasts, but the question of sex must remain an open one for the present. Personally I believe the figure to be that of a goddess. The Minoan male deity seems to have occupied a very secondary position in the Minoan pantheon, and it is not likely that here he should have been made not merely the principal but the only figure in a scene of evidently religious significance. The sacred tree which figures in the scene is always an attribute of the female divinity and usually appears in all cult scenes where the goddess plays a leading part.

[3] *Mycenaean Tree and Pillar Cult*, p. 4.

[4] Another point of discussion is what idea the artist wished to convey by the attitude of the goddess's left arm and hand. To the Anglo-Saxon mind it at once conveys the idea of beckoning, but as Prof. H. N. Fowler has pointed out to me, it is customary in Crete and the southeast of Europe at the present time to beckon with the fingers pointing down. This I believe was also the habit in classic Greece. Customs of this sort are less likely to be changed than almost any others by the course of time, so it is quite possible that in Minoan times they beckoned downwards, in which case the motions of the goddess are not very intelligible.

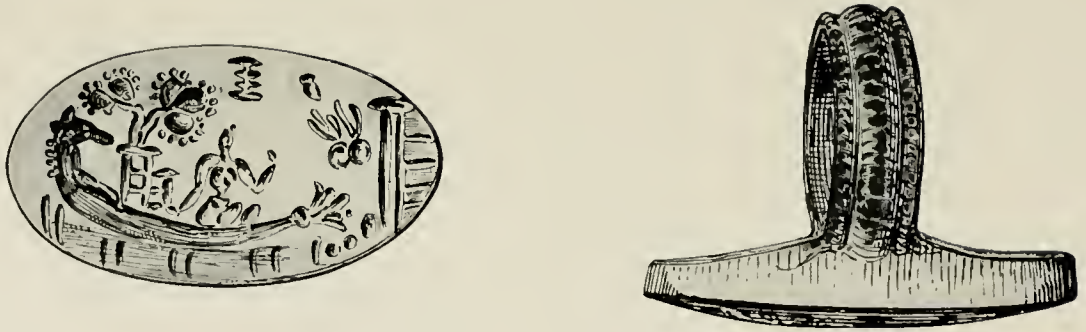


FIGURE 52. GOLD SIGNET RING FROM A L. M. I INTERMENT. SCALE 3 : 1

strong resemblance to a figure 8 shield lying on its side. The small object immediately above it might be almost anything. The third and last symbol may be meant for a quadruple axe such as is shown on the sarcophagus from Hagia Triada.[1] In the case of the symbol on the Mochlos ring the vertical position of the object is quite unlike the usual representation of the axe in Minoan cult scenes.

In other respects this ring follows the usual type of Late Minoan rings of this sort and, from the small size of the hoop, was probably used only as a signet. The hoop measures 1.2 cm. by 9 mm. and, if worn at all, could only have belonged to a child. The field measures 1 by 2 cm.

This ring, like nearly all others of its class, is probably not of solid gold but is merely a shell of that metal over a core of some other material. These cores are usually of bronze, but in the case of this ring the preservation is so excellent that there is no means, short of cutting through the gold itself, of telling what may underlie the covering. That the design is not cut in solid metal is clear, as there are no sharp edges as would be the case if this technique had been employed. This is one of the best means of detecting forgeries in rings of this kind, as in the forgery the design is usually carved in solid gold and shows sharp ragged edges when examined with a glass. The usual method, which seems to have been the one employed in making the ring, was to carve the design in the core and then work the gold covering into the carving from the outside.

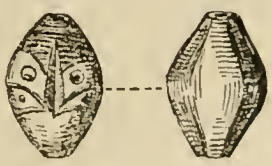


FIGURE 53. SCALE 1 : 1

The remaining object from this burial is an amygdaloid hematite seal, Figure 53. Dr. Evans tells me that this is a type of gem common in the L. M. II period and that it probably represents a conventionalized lion mask. The ring would naturally be placed in this same period, but in these eastern towns L. M. I art was still flourishing when Knossos was producing objects of the L. M. II style. The blow which fell shortly afterwards wiped the eastern towns out of existence before they had adopted the styles characteristic of the L. M. II period. At Mochlos no L. M. II settlement came to light, although shortly before the town was destroyed L. M. II vases began to be imported from Knossos, the chief centre of artistic development.[2]

Therefore we must class the signet ring and the hematite seal

[1] Paribeni, *Mon. Ant.*, Vol. XIX, 1908, pp. 1–86. [2] *A. J. A.*, Vol. XIII, p. 285.

with the L. M. I objects from Mochlos, although they doubtless date from the end of the period.[1]

The Pottery from the Cemetery

In all about 265 clay vases were found in the cemetery of Mochlos, but of these nearly half were in a very bad state of preservation. Most of them belong to the E. M. II and E. M. III periods. There are a few M. M. I and M. M. III vases, whereas the L. M. I period is represented solely by the big jars containing the child burials.

THE E. M. I PERIOD

A large deposit of this period was found underlying the big chamber tomb No. V, but the vases were all so fragmentary that only the smaller ones could be pieced together. The many baskets of potsherds from this deposit contained parts of only one painted vase, which belonged to the geometrical dark-on-light style of the first part of the E. M. II period. The rest of the fragments were of red or black clay, sometimes burnished, but more often not. The clay is very coarse in quality and the vases badly made. The black ware is, as a rule, of better workmanship than the red and was used chiefly for goblets and round-bodied bowls with suspension handles. Most of the unpolished vases had been pared into the required shape by some dull instrument which, instead of cutting the clay cleanly, has dragged it open, leaving holes and imperfections over the entire surface of the vessel. All this ware was handmade and in the cruder examples one can see finger marks where the potter had handled the vessel while the clay was still moist. No incised ware was found in this deposit, and although some of the burnished sherds might pass for true neolithic ware both in shape and finish, it is clear that they belong really to the period of transition which lay between the incised neolithic ware and the geometrical painted pottery of the E. M. II period. The presence of a very few fragments of beaked jugs shows that this deposit, though containing many neolithic types, immediately precedes the E. M. II age, when such jugs make their first appearance. This deposit possesses a peculiar interest, as it is the first of its kind found on or near the Isthmus of Hierapetra; it shows the close relationship of the E. M. II and the neolithic

[1] Unfortunately this ring was stolen from the Candia Museum in 1910, and although the Cretan government offered a liberal reward for its recovery, as yet nothing has been heard of it.

periods, between which it acts as a connecting link, partaking of the characteristics of both yet clearly belonging to neither.

The best preserved objects from this deposit are shown in Figure 48, Nos. 29–42. The shape which occurred most frequently was that of a clay spoon or ladle like Nos. 29, 30, 41 and 42. This sort of ladle is never met with in E. M. II deposits and must be either a survival from the neolithic period or else a product peculiar to E. M. I potters. These ladles are always of reddish clay, unburnished, and are often covered with a sort of reddish wash. The horn-like object No. 31 appears to be an early example of the "horns of consecration" although one would hardly expect to find them appearing as a cult object in so early a period. In the illustration (Fig. 48), they might also be taken for a boat, but the fact that the outside surface is slightly crescent shaped and the back quite flat makes this theory improbable. Three small votive double axes, one of bronze (Fig. 12, No. II, 46) and two of lead, found in Tomb II, in an unmistakable E. M. II deposit, would tend to prove that these cult objects had their origin at a much earlier date than would have been believed possible.

Nos. 32 and 33 (Fig. 48) belong to a type common in this E. M. I ware and their use is not easy to determine. They are made with a hollow stem of clay and a broad flaring rim. No. 32 contained a bit of coarse linen and a tiny piece of bronze or copper, which shows that metal was not unknown in this period.

No. 34 is another common shape which has been discussed in connection with No. I, *a*, of Tomb I (Fig. 4). A number of coarse clay cups, Nos. 36 and 39, were found, and these cups, together with the curious vessels, Nos. 32, 33 and 34, would incline one to the belief that this was a place of offering, as these vases could never have served any practical household use. This would help to explain the presence of so large a deposit of pottery on the very edge of the cliffs in a place unsuitable for dwelling houses. We know, also, from similar objects found among the Mochlos houses, that the people of this period had their dwellings on the same site as that occupied by the later town.[1] It is quite possible that in the E. M. I age this slope was already in use as a burial place and that these vases were the offerings to the dead. No grave of the period came to light, but in the construction of the three large chamber tombs Nos. IV, V and VI in the E. M. II period, the westernmost of which, No. V, overlay this mass of sherds, the E. M. I graves as well as a great part of the pottery deposit may have been swept away.

[1] *A. J. A.*, Vol. XIII, p. 279.

Nos. 35 and 40 (Fig. 48) are clay rings of which many fragmentary examples were found. They probably served to support round-bottomed vases which, if we may judge by the scarcity of flat bases among these sherds, must have been the usual type.

Nos. 37 and 38 are roughly rectangular lumps of clay pierced at each corner with vertical holes for suspension. Similar objects were found on the town site in E. M. I strata. Like the ladles and the curious little vessels, Nos. 32–34, their use is difficult to imagine, as, when suspended, they must have been at best clumsy affairs capable of containing little or nothing.

The remaining shapes from this deposit are represented only by fragments. There are the necks of three jugs like No. 45 (Fig. 48). Many pieces of plates and saucers were found, also a number of broken goblets of black burnished ware of the same general type as No. VI, 11 (Fig. 23) from Tomb VI and those from the town of Mochlos [1] and from Gournia.[2]

A few parts of "fruit stands" (Fig. 37, No. XVI, 10) were found; but the surface was never so highly burnished as in the specimens from the E. M. II and III graves. Such vessels in fine grey clay were found at Gournia in early deposits.[3]

A few handles and bits of necks appear to have belonged to vases like those from Tomb V, Figure 18, No. V, *b*, and No. 87 of Figure 50.

No piece of mottled ware was found in the entire deposit and only an occasional sherd of the highly polished buff ware of the E. M. II period.

Certainly this E. M. I ware is very inferior to the best neolithic ware of Knossos, which has never been found thus far in Eastern Crete. The earliest strata on these small sites always belong to this intermediate type and must date from the period of expansion when, quitting the large neolithic centres in which they had established themselves on first reaching Crete, the Minoans began to spread over the island in search of new homes. This scattering of the inhabitants may have been due to the overcrowding of such neolithic centres as Knossos and Phaistos or simply to the desire to bring the rest of the island under cultivation, but it is a noticeable fact that all these small settlements sprang into being at about the same time, that is to say, shortly before the end of the E. M. I period. Another reason for the sudden populating of these hitherto uninhabited areas may have been a migratory movement which brought into the island a new influx of people of the same race as those so long estab-

[1] *A. J. A.*, Vol. XIII, p. 279, Fig. 2, No. 1.
[2] *Gournia*, Pl. XII, No. 12.
[3] *Gournia*, p. 56, Fig. 37, No. 3.

lished at neolithic Knossos. The culture is evidently the same as that of Knossos, but is not so highly developed as one would have expected had the settlers of these eastern towns come directly from Knossos itself. If, however, they were outsiders of the same race, their culture, though the same in all main points, had evidently remained in a more backward state than that of their Knossian kinsmen. Once settled on Cretan soil this less-developed culture soon made up for lost time and by the beginning of the E. M. II period was on a par with that of the larger and older Minoan centres.

So far little or no excavating has been done in the interior of Eastern Crete. Almost all the sites examined have been on the coast line, and none show signs of having been occupied before the beginning of the E. M. I age. It is possible that excavations may reveal the presence of a neolithic population in Eastern Crete, living at some distance from the sea for purposes of safety, for it is probable that only with the growth of the Early Minoan power were the inhabitants enabled to descend from the hills and establish settlements on the coast. Near the Isthmus of Hierapetra there are, at present, no evidences of neolithic sites; even Vasiliki, which lay nearly three miles inland and was evidently a place of importance in the Early Minoan period, shows no signs of having existed in the neolithic age.[1] At Palaikastro there is some evidence of a neolithic population living back from the coast, for in 1905 a neolithic settlement was discovered at Magasá.[2] This village lies on the high limestone plateau which rises to the south of Palaikastro and forms the central part of the extreme east of Crete. From all the district about Magasá the excavators at Palaikastro obtained numbers of stone axes. We know that stone axes were still used in the early part of the copper age in various parts of Europe, but that they rapidly disappeared once a knowledge of metal working was acquired. A few stone axes from a site could not be taken as certain evidence that the site dated from the neolithic period, but when such axes are found in large numbers, all coming from one district, it is natural to look for neolithic settlements in that neighborhood. The excavation at Magasá yielded but few objects, all of undoubted neolithic origin, and it is possible that further excavations would prove that the central portion of Eastern Crete had an extensive neolithic population contemporaneous with the flourishing neolithic centres of Central Crete.

[1] Since the above was written, a few sherds of apparently neolithic manufacture were discovered in 1910 in the Gournia cemetery. The sherds are so fragmentary that their neolithic origin cannot be held as proved.

[2] *B. S. A.*, Vol. XI, p. 260.

THE E. M. II PERIOD

Numerous vases of the E. M. II period were found. They are interesting inasmuch as most of them belong to the earlier part of the E. M. II age, before the mottled ware attained its great popularity. Many of the dark burnished vases show close affinities to the ware of the preceding E. M. I period just described, although a number of new shapes have come into use. The best vases are those belonging to the early geometrical dark-on-light style, of which the chamber tombs produced several very fine examples in a good state of preservation. The saucer of Figures 7 and 13, No. II, *l*, is one of the best of this class and, in quality of clay and paint, bears comparison with any of the later Minoan fabrics; its design is characteristic of the geometrical dark-on-light style, examples of which were found at Gournia and Vasiliki in 1905.[1] Latticed figures resembling double axes are often found at Knossos on a closely corresponding M. M. I ware, which evidently owes much to this E. M. II technique. In these Knossian M. M. I examples the design takes rather an extreme and elongated form and has been called by its discoverers the "butterfly" pattern.[2] It had been thought heretofore that the religious symbol of the double-axe did not occur before the M. M. III age, but since such votive axes in bronze and lead were found at Mochlos in an Early Minoan II tomb (p. 36), there seems no reason to doubt that not only the M. M. I "butterfly" ornaments, but also the designs on this saucer are meant to represent this symbol. Festoons like those on the rim of the saucer are to be seen on a cup from Tomb VI (Figs. 22, 23, No. VI, 6) and are common both in E. M. III and M. M. I wares.[3] The jug of Figures 4 and 13, No. I, *b*, bears a design of cross-hatched triangles frequently noted in the ware of this period from Vasiliki. Vases of the geometrical E. M. II style have also been found at Zakro,[4] Palaikastro,[5] Phaistos, Hagia Triada,[6] Koumasa, Porti and other sites, of many of which no complete account has yet been published.

Of the typical E. M. II mottled vases very few specimens were found, and most of those, owing to the peculiar action of the soil, had entirely lost their painted surfaces. It would seem that few of them possessed the brilliant mottling of the Vasiliki vases. Plain burnished red ware occurred more frequently.

[1] *Gournia*, Pl. XII, Nos. 20, *a*, *b*, 25–33 and Pl. A, No. 3.
[2] *B. S. A.*, Vol. IX, p. 95, Fig. 65, *p*.
[3] *A. J. A.*, Vol. XIII, p. 292, Fig. 13, No. 2 of top row; *Trans.*, Vol. II, Part 2, p. 126, Fig. 9, *a*.
[4] *B. S. A.*, Vol. VII, p. 144, Fig. 52. [5] *B. S. A.*, Vol. X, p. 196.
[6] *Mon. Ant.*, Vol. XXI, Pl. IX, Figs. 21, 22.

No. 44 (Fig. 48), belonging to this period, is a curious mixture of the dark-on-light, the mottled and the incised styles; the upright triangles of dark paint present a mottled surface and are separated from one another by double rows of dots incised in the clay of the vase, a reminiscence of the preceding incised wares.

No. 24 (Fig. 48) is the prototype of the straight-sided E. M. III and M. M. I cups. No. 27 is derived from the E. M. I cups, Nos. 36 and 39. No. 28 is also an early shape, more common in stone than in clay. The goblet type (Figs. 22, 23, No. VI, 11) is of very early origin and lasted from neolithic times into the E. M. II period. This specimen is of fine grey clay similar to that used for the incised sub-neolithic vases of the first part of E. M. II age.

THE E. M. III PERIOD

The pottery of the E. M. III period, though found in large quantities, was for the most part in a bad state of preservation. Both the white and the black paint had suffered from the action of the soil and the examples, as a whole, are inferior to those found on the town site.

The shapes and designs differ but little from those already known from the excavations at Vasiliki, Gournia and Pseira. The examples from the cemetery cover the entire period from its earliest stages to the beginning of the M. M. I age. At the close of the E. M. III period the vases so closely resemble those of the M. M. I epoch that it is very difficult to say where one style ends and the other begins; certain types seem characteristic of both periods.

No. XXI, 5 (Fig. 46), one of the earliest vases of this period, is very primitive in shape and appearance. It closely resembles, in form, some of the Trojan vases of the third city.[1] The body paint shows the mottled surface of the E. M. II style but without the usual polishing. The white geometrical design places it early in the E. M. III period.

No. XVI, 8 (Fig. 37) bears a white design very characteristic of the E. M. III age. The shape is not of early origin and is never found in E. M. II deposits. Among M. M. I vases it is very common and on the whole must be regarded as a development of the side-spouted E. M. II jugs, which last into the M. M. I period.

No. IV, 2 (Figs. 18, 19) is a shape unusual in E. M. III deposits and is evidently the prototype of M. M. I cups of similar form. No.

[1] Dörpfeld, *Troja und Ilion*, Vol. I, p. 263, Fig. 132.

V, *b* (Fig. 18) shows the early incised pattern of dots from which the painted design on this cup is derived.

Of the cups of Figure 49, Nos. 56–63, the straight-sided ones are derived from an E. M. II type (Fig. 48, No. 24), whereas the round-bodied cups resemble those found in the E. M. I deposit (Fig. 48, Nos. 36, 39), although this shape rarely appears in the intervening E. M. II period.

THE M. M. I PERIOD

The M. M. I period was as poorly represented in the cemetery as on other Minoan sites near the Isthmus of Hierapetra, where polychrome ware was of very rare occurrence. With the beginning of the M. M. I age it seems that we must turn from the settlements in Eastern Crete to the great palace sites of Knossos and Phaistos for our knowledge of the period. Although polychrome ware was found at Mochlos in only a small quantity, and even then badly preserved, there are a good many examples of the contemporary geometrical dark-on-light M. M. I ware which closely resembles the earlier style of the E. M. II period. In Figure 49, Nos. 66–71, six vases of this class are shown. They always possess the same highly polished buff surface which characterizes the E. M. II ware so that when there is no painted design the shape alone indicates to which period they belong. The designs of the M. M. I painted examples are more stereotyped and present less variety than do those of the E. M. II vases. No specimens from Mochlos show the latticed triangles and similar figures so common in the E. M. II period. At Knossos such latticed figures survived in the "butterfly" pattern already mentioned on p. 96. At Mochlos the designs are usually sets of obliquely curving lines (Figs. 32 and 33, No. XIII, *h*), scrolls (Fig. 37, No. XVI, 9), and waves of paint (Fig. 49, Nos. 67 and 69). The shapes of Nos. 67, 69 and 71 (Fig. 49) are degenerate forms of the E. M. II side-spouted jugs.

In Figure 49, Nos. 51–53 and 55 are of M. M. I date; Nos. 51 and 52 are of a shape which occurred frequently in this cemetery, but which is not common elsewhere. No. 55 is evidently derived from an E. M. III type (Fig. 19, No. IV, 2). No. 84 (Fig. 50) is a characteristic M. M. I shape which originated in the E. M. II period[1] and after lasting through the E. M. III epoch (Fig. 49, Nos. 56, 57, 61, 62 and 63) emerged in this form.

No. 91 (Fig. 50) is the clay representative of the black steatite bowls which first appear in the M. M. I period and are very

[1] *Trans.*, Vol. I, Part III, Pl. XXXIV, No. 2.

common throughout the whole Middle Minoan age (Fig. 18, No. IV, 1).

The two vases of Plate VIII, Nos. XI, 13, 16, are the best and almost the only examples of polychrome ware from the cemetery. The bull from this same tomb (Fig. 29, No. XI, 14), although a poor and clumsy attempt at animal modeling, is interesting because it proves that the custom of making such clay bulls arose at an early date and was by no means confined to the L. M. period.

The Stone Vases

Of the many objects found in the Mochlos cemetery the 130 stone vases are probably the most important as they are certainly the most beautiful. The jewelry, though interesting, is, on the whole, of crude workmanship, and the same must be said of the pottery. The stone cutter, on the other hand, possessed a proficiency little short of marvelous for so early a period. His eye for form was excellent, and he was very clever in selecting materials in which the natural veining of the stone helped to set off the shape of the vase for which he intended it. At first glance one would suppose that these vases were the work of a skilled lapidary, but on examination it appears that they were not turned on a wheel but were roughly shaped into the required form and then ground down by hand.[1] How such a task was accomplished is, in these days of machinery, difficult to conceive, as each vase must represent weeks of patient labor. To cut out the inside core a circular drill was used as in the later periods. The central core which remained was then broken off, in some cases so unevenly that a part of it still adheres to the bottom of the vase. The same method was used in the L. M. I period. Tools of many sorts have been found, but no drill of any kind has yet come to light. This may mean that the drill consisted of nothing more substantial than a hollow reed whirled in sand; I believe that drills of this description were used in Egypt for similar purposes. We have no knowledge of the other tools employed in the manufacture of these stone vases but, as I have said, if we may judge by one or two partly finished examples, they were roughly blocked into the required shape and then polished by hand, in all probability with the stone polishers which turn up so frequently on all these early sites. In vases of soft materials this was

[1] M. Gilliéron, who made the drawings of these vases, pointed out to me the impossibility of their having been turned on a wheel, owing to the irregularities of shape which are especially noticeable in the rims of the larger vessels. These irregularities could not possibly have occurred in wheel-made vases.

no very difficult task, but many of these vases were of hard stones which must have required an enormous amount of labor. The contents of one or two of the large chamber tombs must represent years of patient toil, and one is not surprised to find that, once metal came into common use for vessels and utensils, the age of fine stone vases came to an end. Rapid decadence in this branch of Minoan art is noticeable at the beginning of the M. M. I period, when the craftsmen turned to pottery and metal working, in which they could attain highly satisfactory results with much less labor.

The materials used for these stone vases are probably native to Crete with one or two possible exceptions. The three vases of white alabaster (Fig. 46, No. VII, *a*; Pl. III, No. XXI, 10, and Pl. IX, No. M, 12) have a decidedly Cycladic look and may be importations. It is not possible to say whether all the other stones employed for these vases are of local origin, but in travelling through the island I have seen most of the varieties at one time or another.

A rough list of the various materials employed for these vases is as follows:

Steatite

1. Translucent green, used only for very small vases (Pl. II, Nos. II, *h*, *k*).

2. Opaque green, with no veining (Pl. VI, No. VI, 10).

3. Mottled green, capable of taking a beautiful polish, used only for small vases (Pl. II, Nos. II, *d*, *e*; Pl. V, No. VI, 9; Pl. VII, No. IV, 6).

4. Plain black. This is a very common material in the M. M. and L. M. periods (Fig. 18, No. IV, 1).

5. Speckled grey and black, of poor quality. This stone was always in a bad state of preservation (Fig. 28, No. XI, 17).

6. Dark grey (Pl. II, No. II, *j*; Pl. IX, Nos. XIX, 2 and XII, *a*).

Breccia

7. Dark grey limestone thickly mottled with brown and white (Pl. III, No. XXIII, *a*).

8. Dark grey limestone with an occasional patch of rose colored stone edged with white (Pl. IX, No. III, *a*).

9. Same without the white edge (Pl. IV, No. I, *e*).

10. Rose colored stone with patches of dark grey (Pl. IX, No. M, 15).

Marble

11. Grey and white in parallel veins (Pl. I, No. I, *j*; Pl. III, No. II, *q*; Pl. IV, No. XIII, *e*; Pl. V, Nos. VI, 1, 13; Pl. VI, Nos. VI, 3, 5, 7, 12, 14; Pl. VII, No. VI, 17).

12. Grey with white mottling (Pl. I, No. XVI, 1; Pl. II, No. II, *a*; Pl. VII, No. XXI, 7).

13. White dolomitic marble with irregular grey veining (Pl. II, No. M, 3; Pl. VII, No. VI, 16).

Alabaster

14. Brilliantly veined onyx marble shading from white to pink and orange (Pl. IV, No. V, *i*; Pl. V, No. VI, 2; Pl. IX, No. M, 13).

15. Clear yellow gypsum alabaster with white markings (Pl. II, Nos. II, *m* and *o*).

16. Plain white (Pl. III, No. XXI, 10; Pl. IX, No. M, 12).

Limestone

17. Red and yellow stone in broad veins (Pl. II, No. M, 7). A rare material, of which only one example was found.

18. Purple or reddish stone without any veining, the only example of which was too rotted to be of any value.

19. Pink stone of which only two examples were found, both of small size (Fig. 37, No. XV, *d*, and Fig. 47, No. M, 17).

20. Coarse white limestone (Fig. 7, No. II, *i*).

It is clear that the E. M. II age marked not only the first appearance but also the acme of these stone vases. The two large E. M. II tombs, Nos. II and VI, which were not used in the succeeding periods, produced the largest and finest examples found in the entire cemetery. In the E. M. III period the vases, though still good, are, as a rule, of smaller size, and the softer black steatite begins to be used to the exclusion of the harder materials. By the beginning of the M. M. I period the day of the fine stone vases is over and the use of black steatite is universal for stone vessels. The technique becomes careless and the shapes are confined to a few ordinary types such as "blossom" bowls, small cups, and shallow bowls, which last on into the L. M. I epoch. It is possible that, at Mochlos, this was due to a decline in the prosperity of the town, for we know the

M. M. I period to have been a poor one, during which the settlement was destroyed, not to revive again until the M. M. III era. At Gournia, Pseira and Vasiliki, however, no fine stone vases were found in M. M. I deposits, so that, on the whole, it seems plain that this early outburst of prosperity on these small sites was followed by a period of poverty and depression. It is hard to account for the high standard reached by the E. M. II craftsmen of Mochlos. At Pseira stone vases were found in great numbers in the early graves, but few show any signs of the fine materials and workmanship which characterize the vases from the Mochlos cemetery. It is true that, at Vasiliki, in an E. M. II well, fragments of splendid stone vases came to light, and also that, in one or two early graves found at Gournia and on the Messara sites, stone vases of a good class were found, though in a smaller quantity than at Mochlos.[1] Time and the excavation of other cemeteries can alone settle the question as to whether this profusion of remarkable stone vases was peculiar to the single settlement of Mochlos or whether this technique spread throughout the Early Minoan towns of Crete. On the whole I believe that it will be found to have been common to all the settlements of the Early Minoan period, varying according to the various degrees of prosperity enjoyed by each.

The question how the Early Minoans obtained their extraordinary knowledge of stone cutting must now be considered. Stone vases or even fragments of stone vases have never been found thus far in either neolithic or E. M. I deposits. Suddenly and without any preliminary steps we find the Minoans of the E. M. II period making delicate vases from hard materials. One would naturally look to E. M. I deposits for initial attempts at stone cutting, followed by a gradual improvement in technique until the perfection shown by the Mochlos vases was attained. As these signs are not forthcoming, another explanation must be sought. Several vases bear slight resemblances to the early stone vessels of Egypt as regards shape, but, on the other hand, many of them are absolutely un-Egyptian in every respect. The question is, therefore, whether these Egyptian analogies would warrant the assumption that in the E. M. II period the Minoans first came in contact with the Egyptians and from them borrowed the knowledge of the tools and methods necessary to produce vases of this character. It must be remembered that these coast settlements were plainly those of a maritime people. Pseira, which was already occupied in the E. M. I period, is the best

[1] *Gournia*, p. 56, Fig. 40, Nos. 1, 2, 4, 6–11; *Mon. Ant.*, Vol. XIV, 1905, pp. 700–702, Figs. 10–12.

proof that this was the case, for who but a nation of seafarers would think of settling on an island three miles off shore, an island solely of value for its little harbor? From Hierapetra it is but a short sail across to the Egyptian coast and, when once Cape Sidero is rounded, the journey from Mochlos to Egyptian ports is an easy matter in suitable weather, and in summer storms are of rare occurrence. Even if the Minoans never intentionally attempted the crossing, what is more probable than that sometimes a boat, driven out of her course, was literally blown over to the Egyptian coast by a sudden storm? One such accident would open the eyes of the Minoan sailors to the possibilities of trade, and that some sort of spasmodic communication had already been established in the E. M. II period is highly probable. That this communication, if it did exist, was carried on by Minoan sailors rather than by Egyptians is certain, inasmuch as the Egyptians were not a maritime people. At this early period, moreover, any idea of people from the Asiatic coast acting as middlemen or traders between Crete and Egypt need hardly be considered. It is doubtful if the Minoans of the Early Minoan age knew as much of the coasts of Asia Minor and Palestine as they did of Egypt. Whatever may have been the case later, there is certainly no evidence that at this early stage, trade passed to and fro between Crete and Egypt by Cyprus and the round-about land route. It is hardly likely that a preëminently seafaring nation like the Minoans would, at any time, have allowed foreigners to act as intermediaries in their commercial dealings with other powers. Moreover, there is no other nation which is known to have begun a seafaring career at so early a period. Let us suppose that occasionally Minoan sailors returned from the Egyptian coast with tales of the products that they had seen among that already highly civilized nation. Naturally these Cretan adventurers would have been struck by things which they had not seen at home, for example, stone vases. Believing that these could be made as easily in Crete as in Egypt, their first steps would have been to inquire how the vases were made, to procure a few of the necessary tools and perhaps some finished vases as models. With the natural aptitude of the Minoan craftsman, the required technique was rapidly mastered and the stone cutters of Crete were soon turning out vases which, if not as accurately cut as their Egyptian models, were certainly far more beautiful in shape and coloring. At first it is probable that the shapes of the Egyptian originals were accurately copied by the Minoans, which might account for the analogies that can be observed between the Cretan and the Egyptian vases. Later this

limited number of types was increased by translating into stone many of the shapes characteristic of E. M. pottery, some of which proved to be exceedingly well adapted to the new technique.

The following vases have been pointed out to me as those which show close analogies with Egyptian stone vases of the early dynasties:

Plate II, No. M, 3.

Plate II, No. II, *j*.

Plate II, No. II, *o*.

Plate III, No. XXIII, *a*.

Figure 18, No. V, *g*.

Plate VII, No. IV, 6.

The Jewelry

In all nearly 150 gold ornaments were found, not including the various kinds of gold beads which form parts of several necklaces. Of these necklaces there are 11, made up of beads of rock crystal, gold, shell, carnelian, amethyst, steatite, breccia, clay and procelain.

Until the discovery of the Mochlos cemetery it was supposed that, in the early Minoan periods, civilization in Crete was primitive, the people poor, and knowledge of metals limited almost entirely to simple tools and weapons of either copper or bronze. In view of the high development shown by the stone vases of this settlement, the profusion of gold ornaments found in the Mochlos graves is not so surprising, and if so small a settlement possessed precious metal in such abundance, what must we imagine was the case in the capital cities? Not only were these Early Minoans far removed from poverty but, so far as Eastern Crete was concerned, they were in a state of prosperity not to be equaled again until the L. M. I period. In the M. M. I graves precious metal rarely occurs and, as we have seen was the case with the fine stone vases, the end of the E. M. III age marks a period of decline, which lasts until near the end of the M. M. III epoch.

The gold work from the graves at Mochlos is, for the most part, of the simplest character, such as one would expect at so early a period. It is only in the gold chains that we see evidences of a delicacy of workmanship which makes it difficult to believe that they are of the same date as the rest of the objects. As a whole this gold work presents close analogies to the jewelry of later date from Mycenae. In the case of the Mochlos ornaments, allowances must be made for

the influence of so early a period on the decorative designs, which are always geometrical in style. It is in the general character of the objects themselves that we see the originals of the type of jewelry in use many centuries later on the Greek mainland. The profusion of thin strips and plates for fastening to the garments of the dead, the diadems, necklaces, seals and weapons, all correspond to the contents of the shaft graves of Mycenae.

If, as seems probable, the mainland Mycenaeans were of the same stock as the Cretan Minoans, these analogies are only natural and help to prove the long, unbroken continuity of the Minoan civilization. If the people of Mycenae were not of the old stock, it seems unlikely that they would have adopted so completely the burial customs of a people whose power they were in the process of overthrowing. On the other hand, if they were a mainland branch of the same race that peopled Crete, who, through civil wars, had snatched the sceptre of Minos and transferred the seat of power from Knossos to Mycenae, they would naturally adhere in the main to the customs of their Minoan forebears. In the period to which the shaft graves belong, the Cretan supremacy was already a thing of the past, but the influence of the invading northener was not strong enough to have changed the habits and customs of centuries of unbroken civilization in this last stronghold of Minoan power on the mainland. Certainly in Crete no signs of an infusion of foreign blood, peaceful or otherwise, can be observed from neolithic times to the decay of the Minoan supremacy in the L. M. II period, to which epoch belongs the bulk of the objects from the graves at Mycenae. Even then the Cretan towns seem to have fallen at the hands of members of the same race, and it is not until the end of the L. M. III period that there are any clear signs of invaders of foreign blood.

From the point of view of technique, the Mochlos gold work falls into two classes. The first is repoussé work, in which the pattern is beaten out over a mould bearing the required designs. In the second class the designs have been pricked through from the back with a pointed tool, thus forming a raised pattern of small dots or punctuations on the outer surface. The repoussé work is, for the most part, confined to armlets, where the gold forms merely a thin covering for a core of some perishable material, such as wooden rings or leather bands. The second technique is used for ornaments of thicker gold, which were worn with no inner core to support them. The diadems belong to this second class as do the strips for sewing to garments. Most of this jewelry was worn in the lifetime of the

deceased; the objects were not mere imitations made solely for burial purposes, as was so often the case with the ornaments from the graves at Mycenae. Although the diadems were doubtless made with the idea of tying the two ends together at the back of the head, the owners of Nos. II, 3, 5, 6 and 10 (Fig. 8) found that to make them more secure it was necessary to fasten them by means of pins which were jabbed through the thin gold. These pin holes are especially noticeable in No. II, 5 (Fig. 9), one end of which is quite full of them.

The pins, Nos. II, 29, *a*, *b* (Fig. 10), are all made from one piece of metal,—petals, stamens and stem. A narrow sheet of thin gold was cut into the required shape, beginning with the stamens and ending with the petals, to which a long strip of thin metal was left attached to form the stem of the pin. This sheet was then rolled up with the stamens inside and the flower was complete.

Large gold beads are usually of very thin metal and must formerly have covered a core of some perishable material (Fig. 25, No. VI, 27, the three centre beads).

As has been said, the only objects which show any signs of very skilful workmanship are the gold chains (Fig. 11, Nos. II, 30, 35, 36; Fig. 25, Nos. VI, 31 *a*, *b*; Fig. 43, Nos. XIX, 20, 22). These chains in point of delicacy bear comparison with those of the late Greek period and prove that, when necessary, the Early Minoan goldsmith could turn out work of real merit. Some of the beads from the Mochlos graves present analogies to Egyptian examples and are interesting in view of the theory of early communication between Crete and Egypt which has already been discussed in connection with the stone vases. The long gold necklace, No. XXI, 19 (Fig. 20), certainly recalls the common "mummy" beads of Egyptian porcelain, and the same may be said of the necklace in Figure 25 (No. VI, 35). It has been pointed out to me that certain carnelian beads in Figure 41 (No. XIX, 14) are Egyptian in style. As they are clearly of local manufacture, they must not be regarded as Egyptian importations but may show that certain types of beads became known to the Minoans through trade with the people of the Nile valley.

Objects of Copper and Bronze

The Mochlos tombs produced about 20 knife blades, 3 spearheads, a number of pairs of pincers and some small cutters, the use of which is uncertain. The knife blades from the earliest tombs are all of the short triangular type shown in Figure 44 (Nos. I, *k*, and XXI, 21, 22).[1] Knife blades of this sort were common on all the Messara

[1] Mosso in his *Dawn of the Mediterranean Civilization*, pp. 105–110, stated that he believed the Early Minoan period in Crete belonged to the Copper Age. His analyses of a number of

sites of the Early Minoan period; the first were found at Hagia Triada.[1] In the M. M. I period the type is considerably longer and has lost the triangular outline of the preceding period (Fig. 45, Nos. XI, 22, XIII, *m*, and III, *o*). In the M. M. III age the shape is much the same, but the midrib becomes more marked and there is some attempt at decoration (Figs. 31 and 45, No. II, 51). In this period a broad, heavy type of knife appears, which is also common in L. M. I deposits (Fig. 45, Nos. II, 52, IV, 17 and XX, 9).

Most of the objects in Figure 12 came from undisturbed E. M. II chamber tombs and therefore belong to that period. The two large knife blades, Nos. II, 44 and 45, are very fine examples of their kind. No. II, 45 is of unusual shape; the common type has a straight or slightly concave edge at the point of attachment to the hilt instead of this scalloped outline. There is no rule as to the number of rivet holes; some blades have only two, others as many as five. Unlike the rivets of the M. M. III and L. M. I blades, the rivets in these E. M. examples are all of very small size.

The votive axe (Fig. 12, No. II, 46) was found at the bottom of Tomb II in an undoubted E. M. II deposit, although it is difficult to believe that it is really of so early a date. Hitherto no double axe used either as a votive offering or as a religious symbol has occurred before the M. M. III period, but, in view of two similar axes of lead from the same tomb, the curious horn-like object (Fig. 48, No. 31), and the M. M. I clay bull (Fig. 29), it would appear that the cult of the double axe with its attributes was introduced into Crete in the earliest times and followed the development of Minoan culture through its various transitions.

Pincers like Figure 12, No. XIX, 28, and Figure 44, No. XIX, 25, *a* and *b*, were very common, and at least one pair was found in many of the tombs. Most of these pincers consist of two separate blades riveted to a handle of perishable material.

The small cutters (Fig. 44, Nos. XXI, 20, and XIX, 29, 30, 32) were usually fastened by means of rivets to vertical handles of wood or bone.[2] The cutters were even more numerous than the pincers.

Early Minoan weapons from various Cretan sites show that they contain almost no tin. It looks very much as if his conclusions were correct, but more such analyses must be made before a Cretan Copper Age can be definitely accepted.

[1] *Mon. Ant.*, Vol. XXI, Pl. X, Fig. 24.

[2] Mosso, *Dawn Med. Civ.*, pp. 135, 136, calls these objects votive axes, but this seems to me more than doubtful. In several of the Mochlos examples the remains of the handle show that it was straight and attached vertically to the blade. If, as Mosso thinks, these objects were axe heads, the handle must have formed a right angle with the blade. I have seen one of these cutters from Crete, now in a private collection, which has the blade and handle all in one piece of metal. In this example the handle forms a straight line with the length of the blade and the whole bears no resemblance whatever to a votive axe.

They vary greatly in size; one, No. XXI, 20 (Fig. 44), is nearly as large as some of the knife blades. Similar cutters were found in the Cycladic cist graves of Amorgos [1] and at Gournia.[2] Knife blades of M. M. I type similar to those shown in Figure 45, Nos. III, *o*, XI, 22, and XIII, *m*, were found at Amorgos [3] and at Gournia.[4] The spearheads (Fig. 45, Nos. XX, 10, 11, 12) are probably of M. M. III date, as no earlier examples are yet known.

Seal Stones

Although many seals were found on the tomb slope, they were, as a rule, of poor quality and late date. Most of them were found either with M. M. III or L. M. I burials or in the loose soil outside the graves. A few can be assigned with some certainty to given periods.

The earliest seals were, with two exceptions, of ivory and came, like those of Hagia Triada,[5] from E. M. II chamber tombs. The best is the one shown in Figure 24. It is a large cylinder of ivory pierced vertically with four small holes and horizontally with three. The design on one end, *a*, is well preserved and presents a labyrinthine pattern of peculiar appearance. The reverse, *b*, is badly eaten away, but the conventionalized design of scrolls can still be distinguished.

The next large ivory seal is that shown in Figure 12, No. II, 41. It came from Tomb II, together with a great mass of gold ornaments. This cylinder is pierced through the side and is engraved on one end with a conventionalized lotus design of very Egyptian character.

Figure 11, No. II, 42, is another ivory seal from the same deposit. Its design, like the preceding one, shows marked Egyptian characteristics. In shape this seal is the evident prototype of certain M. M. III signet seals like that of Figure 14. The late Sig. Mosso suggested that these ivories are not seals at all but *pintaderas*.[6] *Pintaderas*, which are found in various parts of Europe, differ from seals in that they were used to stamp designs in color on flat surfaces and not to make impressions in relief in wax or clay. That these Early Minoan ivory objects are *pintaderas* is far from proved. I know of none which bears the slightest traces of coloring matter in the interstices of the carving, but some such traces would surely remain if the ivories had been stamped in colored pigments. Seals figure so

[1] *Ἐφ. Ἀρχ.*, 1898, Pl. 12, No. 7.
[2] *Ἐφ. Ἀρχ.*, 1898, Pl. 12, Nos. 6, 8.
[3] *Gournia*, Pl. IV, Nos. 28–30.
[4] *Gournia*, Pl. IV, Nos. 51–53.
[5] *Mon. Ant.*, Vol. XXI, Pl. X, Figs. 25, 26.
[6] *Dawn Med. Civ.*, p. 256.

largely in lists of small objects from Minoan sites that the custom of using them probably dated from very early times, whereas *pintaderas*, if we except these possible early Minoan examples, are unknown in the succeeding Minoan periods. *Pintaderas* were employed principally in stamping designs on the human body, a species of temporary tatooing. From what we know of the Minoans as shown in the frescoes from Minoan palaces, there is no evidence that this custom of stamping the body with colored patterns existed in Crete, and as Sig. Mosso himself admitted, the whole theory rests on very slight evidence furnished by the Greek mainland and on the existence of such a custom in various parts of Europe.

Two more early seals were found on the main slope. Figure 39 came from a mixed burial deposit of E. M. II and E. M. III date. Like the ivory seals, it is pierced through the side and bears an engraved design on each end. Of one end a small fragment only is preserved, showing a geometrical pattern of triangles. The other end bears the design shown in Figure 39, *b*, representing a curious seated figure, probably a female divinity if we may judge by the ample form. Both hands are raised in the manner of the porcelain votary from Knossos[1] and the clay goddesses from Gournia[2] and Prinia. Behind the throne or chair is a curious object, perhaps a sacred tree, and in front of the figure are traces of something else, possibly a kneeling figure of which we see only the outstretched arms. Behind the head a cross appears in the field, similar to one shown in Figure 14, under the horn-like object. The only other seal of the Early Minoan period came from near the large chamber tomb, No. II, and was associated with E. M. I and E. M. II potsherds. It is a cylinder of white limestone pierced in the usual manner through the side (Fig. 54). One end is quite plain; the other bears the cross and irregularly placed dots shown in the drawing.

The Early Minoan seals from other parts of Crete are all similar both in materials and workmanship to those just described. A great many have been found in the Messara both by Dr. Xanthoudides and by the Italian expedition; but Mochlos is the first site in Eastern Crete on which they have occurred. They are, for this reason, important, inasmuch as they help to prove the widespread uniformity of this

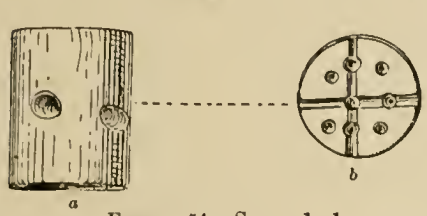


FIGURE 54. SCALE 1 : 1

[1] *B. S. A.*, Vol. IX, p. 77, Fig. 56, *a*, *b*.

[2] *Gournia*, Pl. XI, No. 1.

early culture. Of M. M. I date there is only the three-sided seal shown in Figure 27, No. X, *a*.

The M. M. III deposits in the upper part of two of the large chamber tombs produced several interesting gems. The best is the signet seal of chalcedony found in Tomb III (Fig. 14). This shape, as I have said, is derived from certain ivory seals of E. M. II date. In point of workmanship it surpasses any found in the cemetery. The field is divided horizontally into three parts or panels. The middle one bears an inscription of the pictographic class. The border above and below this panel is filled by a design of spirals and barred stopgaps which recall favorite designs on the painted pottery and jewelry of the L. M. III period.[1]

Another gem of similar date is shown in Figure 6, No. I, *s*. This is also of chalcedony; it bears a marine design of an octopus, two fish and a sea-urchin. The fish and the sea-urchin occur on a similar gem from Palaikastro. These gems are among the earliest examples of the use of marine subjects for decorative purposes; such designs occur frequently in L. M. I and L. M. II painted pottery.

Figure 27, No. X, *b*, is a signet of the same type as that of Figure 14. It is evident that here we have to do with a Minoan demon of very lively character. Indeed, anything more rollicking than the expression and attitude of this creature can hardly be imagined, and on the whole it bears a close resemblance to a child's Jack-in-the-Box. The head is surmounted by horn-like objects so that it might well pass for a Minoan imp.

The silver signet of Figure 35 belongs to this M. M. III class of seals and is chiefly remarkable for its fine state of preservation in a cemetery where silver has suffered so severely from the action of the soil.

Figure 30, No. XII, *i*, is also of M. M. III date. It belongs to the earlier three-sided type; but in this case only two of its three faces are engraved. The material is red carnelian, but the workmanship is coarse in comparison with that of the seals just described.

Figure 38, No. XVI, 12, is probably of M. M. I date; but as this tomb deposit contained objects of the E. M. II and III and M. M. I periods, nothing can be said with certainty.

The remaining gems are all of poor workmanship and must belong to the period of L. M. I child burials. They were found scattered

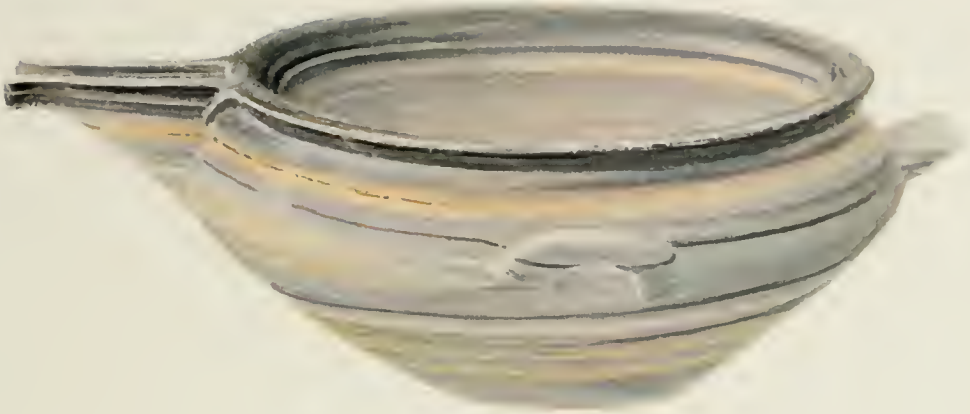
[1] I am indebted to Dr. Evans for an interpretation of the symbols which fill the panel. The cross under the horned objects marks the beginning of the sentence, which should be read from left to right. The first symbol is the type of horned altar which so often figures in cult scenes. This is followed by a full-rigged ship carrying one bank of oars. The third and last sign is evidently the "trowel," although part of it has been broken away.

about on various parts of the slope, which makes it probable that they came from the broken jars of that date which have been already mentioned.

The silver cylinder of Figure 36, No. I, *n*, is probably of Babylonian origin. It was found in Tomb I, associated with E. M. II objects, and must, therefore, belong to one of the burials of that period. The metal is badly corroded and, although traces of engraving can be made out, not enough remains to allow one to assign it to any fixed period.[1] This cylinder is one of the few objects of possibly foreign origin which occurred in the Mochlos cemetery. How it reached Crete is not easy to say, but no doubt through the hands of native traders. If we accept the theory that the Minoans of this period had already established intercourse with Egypt, it is probable that this cylinder arrived in Crete through Egyptian channels. It is also possible that it came by way of Cyprus, though there is no evidence of communication between the two islands at so early a date. The presence of one such seal cannot be used to prove any direct intercourse with Babylonia and the East. If such intercourse had existed, Babylonian art must have exercised some influence on the development of Early Minoan culture; as a matter of fact such influence is notably absent, and all signs point not to the East but rather to Egypt as the power with which the Minoans first came in contact.[2]

[1] I am told that the large opening is a good indication of its early date.

[2] It has been suggested to me that this cylinder may be of Cretan manufacture, although this does not seem likely. Cylinder seals were made in Crete in the Middle Minoan age, but so far as we know they did not appear as early as the E. M. II period, to which this example apparently belongs. The faint traces of figures which can be seen on the cylinder look more Asiatic than Minoan.



I. *j.*

XVI. 1.

SCALE ABOUT 1 : 2

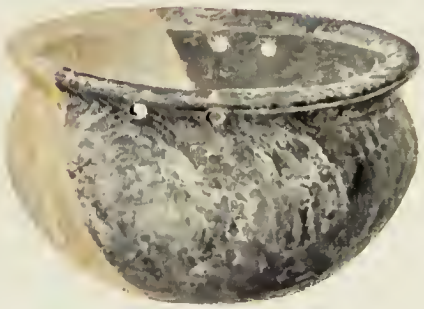
II.*h*.

II.*K*.

M.3.

M.7.

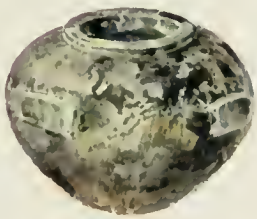
II.*e*.



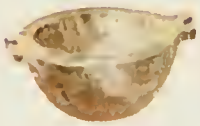
II.*a*.

II *j*.

II.*o*.



II.*d*.



II.m.

Scale slightly above 1 : 2

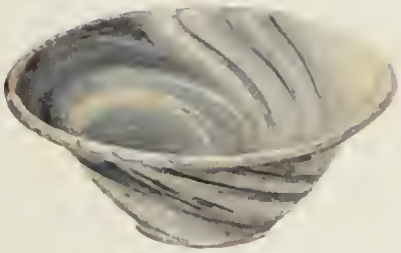
II. q.

XXI. 10.

XXIII. *a.*

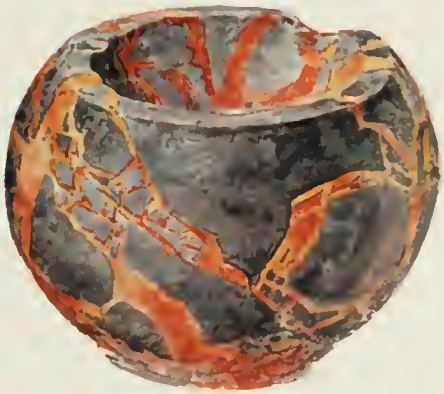
Scale about 3 : 5

PLATE III



XIII. *e.*

V. *i.*



I. *e.*

Scale about 3 : 5

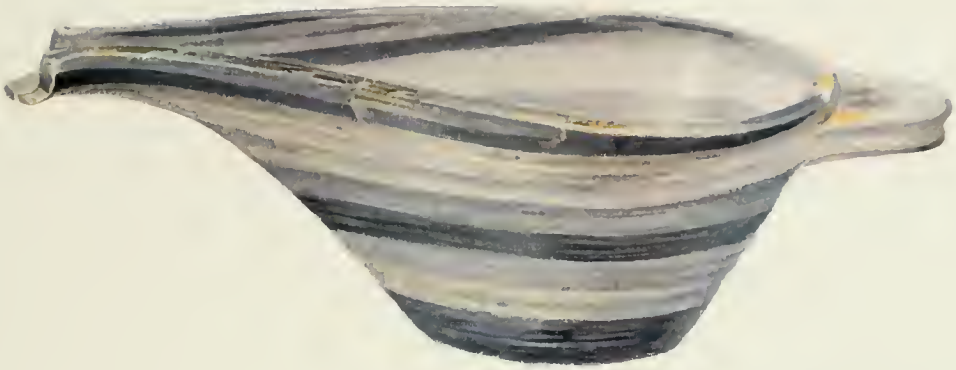
VI.1.

VI.9.

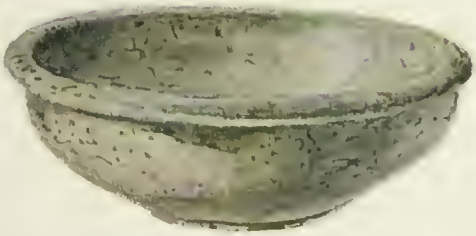
VI.13.

VI.2.

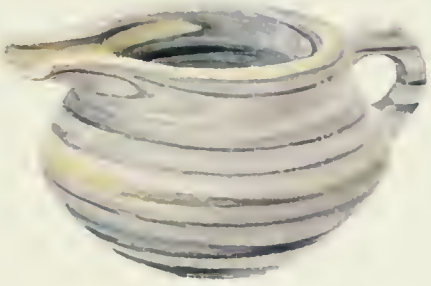
Scale about 3 : 5



VI.3.



VI.10.



VI.14.

VI.5.

VI.7.

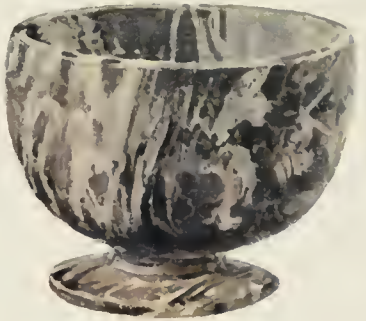
VI.12.

Scale about 3 : 5

VI.17.

VI.16.

IV.6.



XXI.7.

Scale about 3 : 5

XI.15.

XI.16.

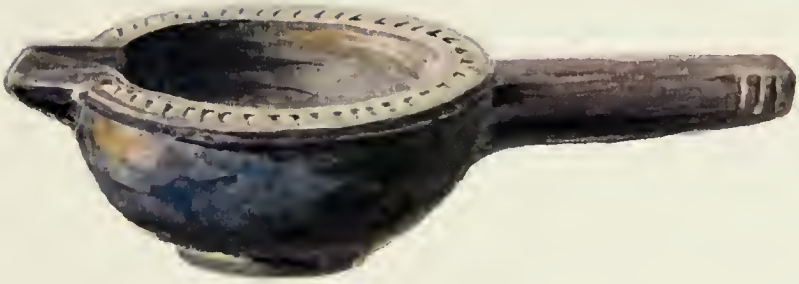
M.80.

Scale about 3 : 8

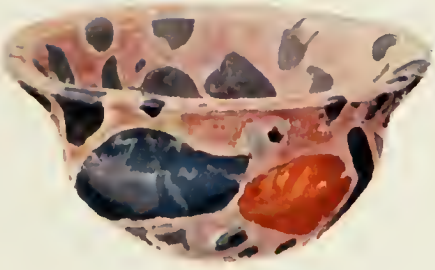
XIX. 2.

M. 12.

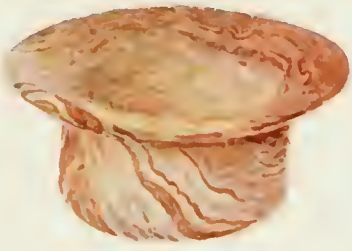
III. *a*.



XII. *a*.



M. 15.



M. 15.

Scale about 5 : 6

XXII.a.

SLIGHTLY ENLARGED

L. M. I Burial Jar (See p. 88). Scale about 2 : 7

AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS

EXPLORATIONS IN THE ISLAND OF MOCHLOS

By Richard B. Seager

111 pages, with 11 colored plates, 32 illustrations in half-tone, and 22 illustrations in zinc etching

This book is a report of the excavations at Mochlos, an island off the coast of Crete, which were conducted by Mr. Seager in the spring and summer of 1908, under a concession obtained by the American School of Classical Studies at Athens. These explorations, which are among the most important recently undertaken in Crete, brought to light an extensive cemetery of the Early Minoan period, in which the tombs, although they had been plundered and used again in later times, still contained many of the objects that had been deposited with the original interments. These relics of early Cretan culture proved a complete surprise to students of the earliest civilization in Greek lands, for they showed that the art of the Early Minoan period was by no means so primitive as had previously been supposed. Especially in the making of stone vases the artists of this time displayed a skill that was hardly surpassed at any later period. Many interesting examples of goldsmith's work also were recovered, as well as pottery, seal stones, and weapons and implements of copper and bronze.

All the objects from the cemetery are fully described and illustrated in Mr. Seager's report, which presents a more complete picture of the civilization of Crete in the Early Minoan Age than has hitherto been available.

It is expected that the book will be ready for delivery in January. The price will be $5.00 to subscribers whose remittances are received on or before February 15, 1912. After that the price will be $6.00. Subscriptions, accompanied by check, draft, or money order, should be sent to Professor George H. Chase, 11 Kirkland Road, Cambridge, Mass.

A sample page, a sample plate, and a blank order are enclosed.

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